UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

UNITED STATES, et al.,	:	Civil Action No.:
	:	1:23-cv-108
Plaintiffs,	:	
versus	:	Monday, November 25, 2024
	:	Alexandria, Virginia
GOOGLE LLC,	:	Day 16
	:	Pages 1-125
Defendant.	:	

The above-entitled bench trial was heard before the Honorable Leonie M. Brinkema, United States District Judge. This proceeding commenced at 9:56 a.m.

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P R O C E E D I N G S

THE DEPUTY CLERK: Civil Action Number 1:23-cv-108, United States of America, et al. versus Google LLC.

Counsel, will you please note your appearances for the record.

MR. HENRY: Good morning, Your Honor. Ty Henry from the Virginia Attorney General's Office on behalf of the Commonwealth of Virginia and the other plaintiff states.

Your Honor, this morning I have with me my colleague, Jonathan Harrison, from the Virginia Attorney General's Office, and Morgan Feder from the New York Attorney General's Office.

THE COURT: Good morning.

Wait one second. We're on. Okay.

MS. WOOD: Good morning, Your Honor. Julia Tarver Wood from the Department of Justice on behalf of the United States plaintiffs. With me are my colleagues Aaron Teitelbaum, who will be conducting the first part of plaintiffs' closing today; Jeff Vernon, Michael Wolin, David Teslicko, and Mr. White will be running our equipment. And our wonderful team is here as well.

Thank you, Your Honor.

THE COURT: Good morning.

MS. DUNN: Good morning, Your Honor. Karen Dunn

on behalf of Google. With me today is Jeannie Rhee, Bill Isaacson, Eric Mahr, Erica Spevack, Craig Reilly, Mr. Matt Spalding, and obviously our wonderful team is here as well.

THE COURT: Good morning.

MS. DUNN: Good morning.

THE COURT: All right. So today we're having the closing arguments of counsel. We've allotted approximately -- and I say approximately -- 90 minutes per side. My understanding is the plaintiff wants to break that up 45 and 45.

Is that correct, or have you changed that?

MS. WOOD: No, Your Honor. It will be approximately an hour to an hour ten minutes, reserving approximately 20 minutes for rebuttal.

THE COURT: Ah. All right. That changes that. All right.

Then probably we'll take the morning break after your opening closing, and then have the Google argument, which is about an hour and a half, and it may not go the whole thing, and then your rebuttal. And whether or not I do a lot of interrupting depends upon how you argue the case. All right. Very good.

So then we will let the plaintiff get started. And what we'll do is we'll let you know when you've done one hour. All right. And then let us know at that point how

much more time you want.

CLOSING ARGUMENT ON BEHALF OF THE PLAINTIFFS

MR. TEITELBAUM: Thank you, Your Honor. That sounds great.

For more than a decade, Google has rigged the rules of auctions, restricted its own customers' freedom of choice, and extinguished competition from better ad tech products through acquisitions. Why then have Google's advertiser and publisher customers continued to do business with Google rather than voting with their feet and taking their business elsewhere? And the answer is simple.

And if we could activate the slide, Mr. White.

Google is once, twice, three times a monopolist in the markets for publisher ad servers, ad exchanges and advertiser ad networks for open-web display advertising, and as a result, Google's customers have no realistic alternatives to doing business with Google and doing it on terms that benefit Google rather than its publisher or advertiser customers.

Google's own executive very aptly described Google's dominance in these three markets in an ordinary course of business communication when he said that the analogy would be if Goldman or Citibank owned the New York Stock Exchange.

Now, Google did not achieve its trifecta of

monopolies by accident. It did so through measures that strengthened its own dominance rather than making its products better or cheaper for its own customers. So, in other words, what Google was doing was executing on a strategy to do to display what Google had already done to search. And we already know what Google did to search because of what another district court across the river has already ruled.

So, Your Honor, I'm going to spend the remainder of my time addressing some key evidentiary points from the trial in a bit more detail and also cover what we consider to be Google's main arguments. So the way I at least plan to proceed is starting with why the plaintiffs' market definition reflects commercial realities, and then I'll address why Google has monopoly power in all three relevant markets, and then why Google's conduct was anticompetitive. And as I go, I'll also address Google's main counterarguments.

And we've got the slides up on the screen, and also I believe binders have been distributed, and if they haven't been, we probably should take care of that.

THE COURT: All right. They have not been.

MR. TEITELBAUM: And of course I'm happy to take the Court's questions on any topic at any time as I go.

But before I start with market definition, I do

want to make an overarching observation about the evidence that the Court heard at trial. And I think we're approximately on Slide 4 or 5 right now. On Slide 5.

And so the observation that I would like to make about the evidence from the trial is that all evidence is not created equal, and what the plaintiffs brought to trial were a wide variety of live industry participant witnesses who testified based upon long experience in the business from ad tech companies to publishers to advertising agencies, and they provided real-world insight into how the markets at issue in this case actually worked.

THE COURT: Well, you know, Google points out that you actually did not call -- I don't believe you called an actual advertiser. Did you not just call agencies?

MR. TEITELBAUM: That's correct, Your Honor. We called advertising agencies because those are the personnel that actually have the most relevant experience working with the tools that are at issue in the markets in this case.

THE COURT: But aren't the advertisers themselves the actual customers?

MR. TEITELBAUM: The advertisers are ultimately the customers, but they do work through the advertising agencies to actually operate the tools at issue.

THE COURT: But you don't think it would have been relevant and valuable for the Court to get a sense --

because we certainly got a sense from publishers as to their actual dissatisfaction and frustration with the stack. But we didn't hear any direct evidence from advertisers, the ultimate consumers, as to their satisfaction or dissatisfaction with the system.

MR. TEITELBAUM: I think what was illustrative is Google called a witness from the Census Bureau, as the Court may recall. And the issue with advertisers, who, of course, are harmed by Google's conduct, but they don't have the firsthand knowledge of what it's like to use Google's tools, and so the marginal benefit from calling them, when really the markets at issue are the tools that do these ad tech transactions, I think we felt that the most effective use of our time was to have the advertiser agencies speak to that.

THE COURT: All right.

MR. TEITELBAUM: And so, as I mentioned by contrast, from Google, the only live witness that the Court heard from Google that was not either on Google's payroll or the recipient of a grant from Google in the case of Courtney Caldwell was a witness from the Census Bureau.

And this evidentiary disparity is an important framework and lens for evaluating the record in this case, because it reflects an important truth, which is that while Google may have control of the markets they've monopolized here, they do not control the facts that govern the market

realities. The facts speak for themselves.

And so I'll turn now and discuss market definition. And as a threshold matter, I do want to make an important distinction about different types of competition and how they are or aren't relevant for this case. I'll break it down into three different types of competition.

First there's overall competition between firms in a sector of the economy. Second, there's competition within a single auction to buy an impression on the open web. And then third, there's competition between products in a particular antitrust product market and geographic market. And for the purpose of market definition in this case, the only one of those three things that matters is the last one, the third item, competition within a relevant antitrust product market and geographic market.

At trial, Google made repeated efforts to conflate these three concepts, and, in doing so, they're really confusing the issues that the Court needs to decide here.

It does not matter, for purposes of this case, whether Google views Meta or Amazon or TikTok as a worthy or worrisome advertiser -- adversary in some broader macro sense in the economy in terms of a rivalry between tech companies. And it also doesn't matter for market definition whether a particular auction for a particular impression on the open web is competitive. Those are both entirely

different questions from whether or not the market for the tools or for a particular tool is competitive in the sense of whether or not the relevant antitrust market is competitive.

And the D.C. District Court acknowledged this contrast in the *FTC v. Staples* case when it said that the mere fact that a firm may be termed a competitor in the overall marketplace does not necessarily require that it be included in the relevant product market for antitrust purposes. What we're concerned about here is competition within relevant antitrust product markets, not overall tech-sector rivalries that may be playing out in the American economy.

So now with those overarching points out of the way, I would like to focus on two key product market definition issues in this case. First of all, why there are separate product markets for publisher ad servers, ad exchanges and advertiser ad networks, the three tools that we talked about at trial, and then also why open-web display advertising is distinct from other forms of digital advertising. And I do think it's worth covering a few other basic principles just briefly.

First of all, market definition is not intended to be an abstract intellectual exercise; it is intended to be a pragmatic one. It's an analytic tool, and not an end unto

itself, as the District Court, once again in D.C., in the *United States v. Bertelsmann* case said. And we have those on the slides, too.

And, similarly, as the Supreme Court said in *Ohio v. American Express*, what we're looking for in the product market definition is the arena within which significant substitution in consumption or production occurs. We're not looking for extraordinary circumstances under which two products might theoretically be substitutable in edge case.

And the plaintiffs don't have to, and we're not trying to rule out every other conceivable way of looking at product market definition in this case. What we have to show and what we have shown is that the market definitions we've put forward meet the requirements that I just laid out.

And another observation from the Court in -- the D.C. District Court. Within a broad market, well-defined submarkets may exist, which, in themselves, constitute product markets for antitrust purposes. And I think paraphrased what that really means is that there is no one true market definition that the Court has to divine from the ether; the question is whether or not the product market definition that we've put forward allows the Court to assess competitive effects and market power and the like. And we've done that.

So starting with the tools that are at issue in this case. And I think this discussion can be relatively brief because there's no real dispute from the trial evidence that TikTok's ad tech tools or Meta's ad tech tools cannot be used to buy or sell open-web display advertising. So they're not reasonable substitutes for publisher ad servers like DFP, ad exchanges like AdX, or advertiser ad networks like Google Ads.

And, similarly, the tools that are used to facilitate programmatic open-web display transactions are not reasonably interchangeable with one another. So a publisher ad server like DFP is not a reasonable substitute for an ad exchange or a demand-side platform. And even, for instance, Google's own witness, Adam Stewart, acknowledged this when he admitted or agreed that a website publisher cannot use DV360, Google's demand-side platform, to sell advertising.

And sort of along those same lines, Mr. Mohan, when he testified, acknowledged that competitors can vary depending on the features or tools that they offer. So it matters whether or not what a publisher ad server is actually used for. It can't be interchanged with a buying tool, for instance, because those two tools have completely different purposes and completely different sets of customers.

And thinking about the tools in this manner is 100 percent consistent with how Google's own internal documents think about them as reflected, for instance, in a defense exhibit, DTX 758, that we have up on the screen, where Google, itself, is conducting a tool-by-tool competitive analysis of its tools versus Facebook tools. And so it's not breaking -- it's not looking at one giant mega market for display advertising; it is looking at each individual tool, like DoubleClick ad exchange, and asking what does Facebook have that competes, for instance, with our ad exchange.

And the fact that these tools have multiple functions, for instance, the fact that DFP can also transact in other types of digital advertising, does not undermine our market definition. Because, as Professor Lee explained, for instance, gas stations may also sell potato chips, but that doesn't mean we can't evaluate competition between gas stations based on their sale of gas. And the Seventh Circuit acknowledged that when they said that the services are not in the same product market merely because they have a common provider. And so we have that cite on the slides as well for future reference.

And, finally, I'll just note that plaintiffs' market definition has taken account of and is fully consistent with -- we are not at odds with *Ohio v. American*

Express, as Google has suggested. In fact, we correctly acknowledge and agree that ad exchanges, like AdX, are two-sided transaction platforms; it's just that the products on either side of the ad exchange, publisher ad servers, and advertiser ad networks are in separate product markets because they have different sets of customers, they have different functions, they have different competitors and the like.

So moving on now to open-web display advertising and why it's distinct from other types of digital advertising.

I think an overarching point that is worth making is that there is no confusion from the trial evidence or uncertainty among the industry participants who testified at the trial that open-web display advertising is very real and distinct from other types of digital advertising. We have just a few examples of the live witnesses that we called from various industry participants who agreed with that proposition. And that's also consistent with Google's own internal documents, like PTX 764 that we have on the slide, which makes reference to display web versus display app, versus search, et cetera.

So this assertion that we've heard repeatedly from Google that open-web display advertising is somehow a made-for-litigation concept is sort of like a zombie; it

seems to keep shuffling along through this case despite being repeatedly laid to rest by the trial evidence.

So turning now to the question of substitution between open-web display advertising and other types of digital advertising. Both live witnesses from trial and documents confirmed that social media, mobile app advertising, instream video, search advertising, none of those are reasonable substitutes for open-web display advertising. And that's true both from the perspective of the advertiser and also from the perspective of the publisher. So what the evidence actually showed is that these different types of digital advertising are complements, not reasonable substitutes.

So to provide a few examples just from the advertiser's perspective. Mr. Lowcock, he explained the differences in pricing, creative considerations, audience targeting considerations that exist among different types of digital advertising and why open-web display advertising has unique considerations in that regard.

And Mr. Lambert, for instance, one of the advertising agency witnesses, he likened the different types of digital advertising to different players on a baseball team. And just like the different players on a baseball team are complementary to each other, so, too, are the different types of digital advertising.

And to borrow and expand on Mr. Lambert's analogy, when something's not going quite right with the pitcher on a baseball team, the solution is not to take out the pitcher and put in a second shortstop, for instance; the solution is to maybe make some adjustments to what the pitcher is doing to try of to right the ship.

Now, from the publisher's perspective, I think it's even more clearcut that the lack of substitution among different types of digital advertising.

As Mr. Wolfe explained at trial when we were talking about the example of the Staunton News Leader, an open-web publisher like the Staunton News Leader has Adspace on its web page as reflected on the slide, but also Adspace on its mobile app. And those are two completely different pieces of real estate, both of which the Staunton News Leader needs to sell at any particular time. And so from the perspective of a publisher like at Staunton News Leader, it's not an either/or proposition, either I'll sell the space on my app or I'll sell the space on my website, they really have to do both. The same as if you have two parcels of land that are for sale, selling one of those parcels isn't a substitute for selling the other.

Google has suggested that substitution by advertisers alone might be sufficient to discipline a monopolist even if publishers can't substitute, but that

argument is unsupported by the actual trial record, because what the evidence showed is that open-web publishers have inventory that they need to sell each time a user opens a web page, and that inventory does not go away or decrease even if some particular advertisers might decide that they're going to spend money on social advertising instead of open-web display advertising. Those open-web publishers are stuck with that inventory that we need to sell no matter what.

I'll just briefly touch on programmatic versus direct deals, because I think the trial evidence was relatively clear on that.

But both advertiser and publisher customers explain -- witnesses explain that there are sales force considerations and overall demand and market considerations that place more or less a cap on the number of direct deals that particular advertisers or publishers are going to be able to do. And there really isn't really a magic lever that they can pull to increase the quantity of direct deals that they're doing; they're basically doing as many as they can. And so contrary to what Dr. Israel suggested, publishers cannot simply work harder to generate more direct deals than they're already generating; they're doing the best that they can.

And speaking of Dr. Israel, what Google has

proposed with respect to its arguments on market definition is essentially an amorphous two-sided ad tech market that they didn't quite define, but that they at least suggested might be out there. And that suggestion rests pretty much entirely on Dr. Israel's testimony as opposed to on the testimony of any fact witnesses.

And so that proposal for market definition is a raid against all of the fact witnesses that the plaintiffs called at trial. And it's frankly pretty unsurprising that Dr. Israel does not have more factual support for that proposed market definition because, as we discussed on cross-examination, his track record in recent courts is consistent with that.

And here's just a few other examples of why that single two-sided market just is not correct and can't be viable. If it's a single two-sided market, for instance, why did we read in Neal Mohan's internal emails about a "three pillar" strategy to control the platform which is DFP, and the buying tool, which is Google Ads, and the exchange in between? And that's reflected on the slide for future reference if the Court wants to look at it. And he was talking about three pillars, not one giant pillar. Google's own internal documents make clear it's three markets; not one.

Google's all digital advertising market also fails

to grapple with the fundamental reality that open-web publishers like the Daily Mail, for instance, or the Staunton News Leader, they have to use a publisher ad server to sell their open-web display ads. So how is it that there can be a valid market definition that suggests that TikTok's or Meta's ad tech tools, which have no ability whatsoever to transact in open-web display advertising at all, can be a reasonable substitute for a publisher ad server? But that is essentially what Dr. Israel is proposing in his proffered two-sided market.

And we also heard from Dr. Israel that many advertisers use more than one form of advertising at once, and that information on its own is really just not informative. The Court asked Dr. Israel during his testimony about the analogy of stoves and microwaves. And I think that's illustrative, because many families are going to have both stoves and microwaves, and even though both of those two items cook food, just because a family has both doesn't mean that a microwave and a stove are reasonable substitutes. In fact, when a family has both, that tends to indicate that those two items are complements; not substitutes.

I'll just briefly touch on the fact that Google's position on market definition is also directly at odds with the position it took before another federal court. And I

know that the Court has heard this before and seen it in the papers. But I do think it speaks to the credibility of Google's proposed market definition that it has completely done a 180-degree turn from what it argued in the Northern District of California. And what Google's market definition litigation strategy appears to be is that when the plaintiffs say it's one market, Google says it's three; and when -- and then when we say it's three markets, Google says it's one. And so I do think that that's an important consideration for the Court to take into account when evaluating Google's arguments on market definition, even if the Court's not inclined to formally grant our motion for judicial estoppel.

And so while we're on the subject of inconsistency, I also just want to make one brief comment about Google's post-trial papers in general, which is just to ask that the Court use caution in taking some of the factual assertions there at face value, because they do not necessarily line up with the evidence that's cited in support.

So just taking one example. On page 7 of Google's post-trial proposed findings of fact, Google asserts that multiple witnesses describe the marketplace as "hyper-competitive" after header bidding, but the citations make clear that the market was described in that fashion

only relative to the previous waterfall setup in which exchanges weren't allowed to compete at all. And then the rest of the quotes generally describe the growth of header bidding in general. So this is just a general caveat that, consistent with what I said before, the evidence really speaks for itself in this case, and it's not the characterizations of that evidence that should control.

On geographic market definition, I'll be extremely brief. Both sides agree that a U.S. market in terms of geography is appropriate. A worldwide market is also appropriate, because even as Google's own witnesses agreed, there is a single AdX, a single DFP, a single Google Ads for the whole world. We don't have AdX United States and AdX Europe, for instance. So the products function worldwide, and so a worldwide market is an appropriate way of looking at them.

THE COURT: You've spent a fair amount of time in both your papers and so far in the argument trying to distinguish one of the basic differences between your approaches to the case, and that is, you're arguing that there are these three separate tools, and in each one of which, the Court should consider a separate market; right? Whereas Google has taken the position that the ad stack is really one entity that has to be looked at as basically using the AmEx type of model. All right.

But I think it's on paragraph 78 of your proposed findings, there's an interesting statement there. You say: Even in a market comprised of an entire ad stack -- which would be the Google's theory -- that you still believe that the evidence would show that there's direct evidence of monopoly even if we look at this as a two-sided transactional market.

I want you to address that point.

MR. TEITELBAUM: Absolutely, Your Honor.

And so that actually does get to the next thing that I was going to address anyway, but I'm going to respond directly to the Court's question. Which is that ultimately direct evidence of monopoly power is, as the Supreme Court has said, the power to control prices and exclude competition. So we typically have to engage in a market definition analysis in order to be able to appropriately evaluate those effects. But in this particular case, we have compelling direct evidence that Google is doing things like saddling its own customers with product features that they do not want.

For instance, in the context of UPR, the Unified Pricing Rules, taking away Google's own publisher customers' ability to set differential floors between different ad exchanges. That's something that literally decreases the freedom of choice of its own customers. And the fact that

Google is able to do that without fearing the consequence that all of its publisher customers are going to say that's not acceptable to us, we're going to go use a different tool, is direct evidence that Google has market power in a particular market. And specifically because Google's publisher customers are stuck using DFP, they can't go anywhere else.

Similarly, when Google --

THE COURT: Well, they can't go anyplace else because they want access to that great mass of advertisers that are on the other end of the exchange. Which, again, you're not directly answering my question.

Basically what I'm asking is, does it make any difference in the long run, given these other factors that you've pressed, does it truly make any difference whether the Court ultimately decides that we have three separate tools, three separate markets, or just the one ad stack, if the whole ad stack, as it operates, is resulting in this anticompetitive monopolistic result, does it make any difference how I've defined it?

MR. TEITELBAUM: Ultimately the plaintiffs can prevail regardless for the reasons that I've outlined, but I do think that it makes more analytical sense to think about it in terms of three different products because those products are not fungible, and they're not reasonable

substitutes, and Google's own documents reflect that.

But nonetheless, I do think that direct evidence of monopoly power that we've seen from Google where it does things that it knows its customers are not going to like, but it does them anyway is an indication that it knows that it has monopoly power, however the Court ultimately wants to characterize what that market is.

And so I'll just touch on a few additional points about monopoly power -- and this does also go to what the Court was getting at -- which is that Google recognizes that one of its major sources of monopoly power is the connection across these different products, from Google Ads, to the ad exchange, to DFP. And that's something that's reflected here in PTX 551, for instance, an internal on Google communication, the value of Google's ad tech stack is less in each individual product, but the connection's across all of them.

And so what the evidence has shown in this case is that Google freely pulls levers in different parts, in different tools to strengthen its dominance in other tools. So, for instance, it uses its control over DFP to give advantages to AdX. It uses its control over Google Ads to give advantages to AdX. It uses AdX to give advantages to DFP. And so that is also a meaningful source of Google's monopoly power in all three markets as we've characterized

it, but also just more generally is a source of Google's monopoly power.

I'll just make a few specific points about the individual products.

So Google's publisher customers recognize that they are stuck with DFP as reflected in these two trial exhibits here, and Google recognizes the same thing. For instance, Google recognized that it would take an act of God to switch publisher ad servers. So that's also an excellent example of direct evidence of monopoly power. And that's PTX 1814.

Similarly, Google has spent a lot of trial time talking about companies like Facebook. And I think it's quite telling that, as reflected in Mr. Boland, from Facebook's testimony, that Facebook tried and failed to build its own publisher ad server. And they determined that it would be infeasible for them to succeed with their publisher ad server because of Google's control across the technology stack as reflected in the slide that we have here.

In advertiser ad networks, Google Ads has the advantage of a tremendous pool of search advertisers that it can port over and use to strengthen its monopoly power in open-web display advertising.

Ad exchanges. The fact that Google also spent a

lot of trial time talking with how dynamic and changing this marketplace is, but I think it's worth contrasting what they're saying about this market with -- in PTX 1199A here, the remarkable stability of that orangish/red line there in the center, that through all of the things that have happened over more than a decade, the entry and exit of Facebook into its attempt to build an advertiser ad network, all the other technological developments, Google has stayed steady at almost exactly 20 percent. That is extremely powerful evidence -- direct evidence of monopoly power.

I'll just also touch briefly on market shares. Google dominates the publisher ad server market with market shares in the high 80s to low 90s, depending on whether we're looking at the U.S. or worldwide. Similarly, Google Ads is in the same general range. And even AdX, while its percentage in absolute terms is lower, PTX 1237 here on the slide reflects that AdX dwarfs all of the other competitors, and, in fact, is -- it dwarfed its next largest competitor by more than a factor of nine, and it's almost twice the size of all of the other ad exchanges on this graph combined.

So I don't think it is really responsive to AdX's incredible disparity in size here to say that, for instance, in the *Kolon Industries* cases in the Fourth Circuit, that when there was one firm with 60 percent market share and one

firm with 40 percent market share, that that somehow undermines the notion that AdX can have monopoly power with 56 percent market share in this particular context.

We've addressed intent to monopolization in our papers. I'm not going to belabor that here. I'll just note that even if the Court isn't persuaded that AdX has monopoly power, this type of market share is still dangerously close to showing monopoly power, especially if the Court considers the flanking monopolies on either side, the monopoly in DFP and also the monopoly in Google Ads.

And as far as specific intent to monopolize, which is also an element for attempted monopolization not present in the other elements, we'll talk about this a bit later, but Google's documents that we displayed throughout the trial reflect a lot of employees saying the quiet part out loud, essentially that what we are trying to do is strengthen Google's dominance. So the Court can see that there is specific intent to strengthen Google's dominance throughout the trial exhibits.

One last observation about monopoly power more generally, and this is an observation that the D.C. Circuit made in the *Microsoft* case.

That as we were talking about earlier in response to the Court's question, Google's behavior is only rational for a firm that knows that it has monopoly power, because it

does things that it knows that its customers are not going to like, but it does them because it knows that its customers have nowhere else to go. And so that's consistent with what the D.C. Circuit observed, conduct that could only be rational if the firm knew that it possessed monopoly power.

So now as I'll turn and spend most of the remainder of my time talking about Google's conduct, and so my goal here, especially mindful of the time, is not to rehash what we've said in our papers, but to try to hit some key points.

First of all, I think it's worth remembering that there is no element of any of the claims here that are asking the Court to determine whether first look or last look or the AdMeld acquisition or any of the other specific instances of conduct in this case standing alone violated the Sherman Act. The question is whether Google's course of conduct as a whole was exclusionary. And the Fourth Circuit's recent opinion in the *Duke Energy* case reflects that analysis. And *Duke Energy*'s not an outlier, but it is just worth mentioning for its recency.

And before I turn to Google's conduct more specifically, I think there's also another observation that's worth making from a Third Circuit case, *LePage's v. 3M*. Which is that there are some things that a monopolist

cannot do, even if those things might be acceptable for a smaller upstart competitor. And that's reflected in the Third Circuit's opinion here because a monopolist doesn't have the same market constraints on its behavior. That's why the Sherman Act has elements of both monopoly power and exclusionary conduct.

So if there's sometimes a temptation to look at some of the things that Google did and think, well, it's the free market, sometimes you need sharp elbows to get ahead, well, it's worth remembering that the standards are different for a monopolist because when a monopolist has market power, its conduct can be a lot more damaging than a firm that has 2 percent market share, for instance.

So now with those overarching principles in mind, I am just going to touch on some of the Google's conduct. And I think Ms. Wood's analogy from her opening is apt. It's the monopolist's playbook dividing the conduct in sort of three broad categories: Controlling the competition, controlling customers, and then controlling the rules of auctions.

So very briefly, just the DoubleClick acquisition is how Google came into possession of AdX and DFP, and that is what enabled all of Google's conduct that came after. And even as early as 2009, Mr. Mohan realized that control of the publisher ad server was going to be key to the

remainder of Google's strategy, because he noted in the highlighted text that if we lose platform share, we can build the best GCN in the world -- that's the reference to what became Google Ads -- but we will still be at a severe risk of being disintermediated if Yahoo or Microsoft owned the ad tag on the publisher page.

So, to paraphrase that, he knew that controlling the publisher ad server and controlling publisher inventory was going to be key, and it was the DoubleClick acquisition that enabled the crucial part of Google's strategy.

Moving on to AdMeld just briefly. AdMeld was a threat to Google really in two main ways. First of all, it offered real-time bidding technology, which put it as a direct threat to Google's AdX tool, and it also provided a different way for publishers to manage their indirect or programmatic inventory that was different than Google's tied together AdX and DFP option. And so that's why Google bought it and parked it somewhere in the words of Mr. Mohan's contemporaneous email. And he tried to provide sort of a post-hoc rationalization for what that means, but I do think that the document speaks for itself when it's read in the appropriate context.

The next general category of conduct are the ties and exclusivity arrangements between Google Ads, AdX and DFP. And so what Google did was it placed two intertwined

conditions on its publisher customers. The first condition was, as reflected in the slide, if you want access to Google Ads unique demand, you must use AdX. And then the second condition was if you want real-time bids from AdX, you must use DFP. And the combined effect of these two conditions was to require Google's publisher customers to use DFP as the publisher ad server if they wanted to meaningfully access Google Ads demand.

And I think it's important to note that this conduct stretches basically throughout the entire time period that we talked about at trial. So it's a background reality that Google's publisher customers had to deal with when they were confronted with Google's other conduct like, for instance, first look or UPR, they are stuck within Google's tools because of those ties and because, as the Court said, they want access and need access to Google Ads unique demand.

And so just a little bit more on the exclusivity between Google Ads and AdX. Google's own employee, Mr. Rowley, acknowledged that it compelled publishers to work with Google's products, and that the reason that this condition existed was, in the words of Google's own employee, was an all-or-nothing proposition. And that's PTX 124 at the bottom of this slide. Use AdX as your SSP or ad exchange, or you don't get access to our demand. And

that's very effective, because as the Court heard from our publisher witnesses, they felt that they could not turn off AdX or go somewhere else other than AdX because of what a significant portion of their revenue would be lost if they did that.

And contrary to what Google suggested at trial, Google Ads does, in fact, have unique demand. We provided a few examples on the slide here, but it's Google's own employees in internal documents, as well as industry participants, that are recognizing that fact in the context of their ordinary business communications. It's not a circumstance where these are external-facing advertising documents where Google is saying to prospective customers, oh, we have unique demand. They may very well do that, too, but it's crucial that the evidence at trial showed that even during ordinary business operations, Google was acknowledging that they -- that Google Ads represented unique demand.

And another important ramification of the Google Ads exclusivity to AdX, is that this is an example of Google Ads making one of its products literally worse from the perspective of its advertiser customers in order to serve its broader aim of maintaining its dominance in the ad exchange market. And that's reflected, for instance, in PTX 198 on the slide because Google's employees in charge of

Google Ads knew that it would be better for Google's advertiser customers if Google Ads bid into a wide variety of exchanges on an unrestricted basis as opposed to primarily and predominately bidding into Google Ads.

THE COURT: Wasn't one of the issues at trial, though, the latency problem, if, in fact, you have multiple auctions into which one can bid that would necessarily slow down the process?

MR. TEITELBAUM: So I don't actually think that Google has even asserted with respect to this particular issue that latency was the concern. They did attempt to at least suggest that header bidding posed a latency concern. But ultimately the evidence just didn't bear that out.

For instance, we heard from several witnesses that the waterfall setup, for instance, that existed before header bidding also had latency problems, but that really header bidding was no better or worse from a latency perspective than any of the other setups.

As I will talk about a little bit later, and I can address it briefly now, Google has suggested that there were cybersecurity considerations that meant that it was better or that they needed to only bid into AdX instead of other exchanges in order to properly account for cybersecurity, but the evidence just never bore that out because we have the benefit of documents like PTX 198 where Google employees

are expressly saying the reason that we're engaging in this product is to prop up AdX's dominance. They're not saying the reason we engaged in this conduct is because we're concerned about cybersecurity.

I'll also just note more generally that it's undisputed that Google, as a tech company, is going to think about cybersecurity to some degree. But this notion that, writ large, Google is concerned about cybersecurity is not a valid pro-competitive justification for taking the actions that it actually took in this case. It would have to actually show -- which it hasn't done -- that cybersecurity considerations required them to take the actions in this case as opposed to doing something that would not have been exclusionary, and they just haven't carried their burden of doing that.

And so I'll just briefly just return to the second condition that Google placed on its publisher customers, which was if you want access to real-time bids from AdX, then you must use DFP, and that's the way that Google forced all of these publisher customers to use DFP as their publisher ad server and to stay with DFP as their publisher ad server.

And the reason that this tie, which is also a standalone Section 1 and 2 claim in our complaint was effective was because AdX was the only place that publishers

could get that unique Google Ads demand since Google Ads primarily and predominately only bid into AdX and not into other exchanges. That's also, by the same token, the reason why Google's own employees acknowledged that Google was able to sustain the 20 percent AdX take rate. Because as Google's own employees recognized in internal communications, there wasn't otherwise a persuasive value proposition from AdX other than that it was connected up to this Google Ads unique demand in this way.

Google has suggested that AdX direct, which was a way of receiving sort of a substandard connection between AdX and other publisher ad servers, is somehow a reason why that tie actually isn't present. But this is just an example of Google's arguments in court being at war with their own internal documents and with what their own witnesses have said previously. Because as we have here, for instance, in PTX 933, in a chat communication no less, that AdX direct is a concept for antitrust.

And so Google recognized at the time that it was creating AdX direct so that it would potentially have an argument in court, that, no, we're, in fact, not engaging in this tying conduct. But the market realities actually reflect, as we noted in paragraph 163 of our post-trial proposed findings, that only about 1 percent of the advertising spend on AdX flows through AdX direct. And that

was as of 2023. And that's fairly persuasive evidence just as a practical matter that the -- that AdX direct is just not a meaningful alternative.

As I mentioned, Google's also separately liable for tying as a result of this conduct. And I'll just note about that that because we've brought a Section 1 and Section 2 tying claim, we actually don't have to show monopoly power in the ad exchange market in order to prevail on that claim. Market power, short of monopoly power, is also sufficient. So if the Court determines that, for instance, a 56 percent market share is not sufficient to show monopoly power, it's still more than enough to show market power and would be sufficient for us to prevail on the tying claim.

I already touched on first look and UPR for a bit, so I'm not going to return to those and repeat myself unless the Court has questions about either of those.

I do think that last look is worth mentioning here. And as the Court I'm sure recalls from the trial evidence, this was a circumstance where because of Google's control over the publisher ad server, it was able to give itself essentially a last bite at the apple for any result of a header bidding auction, and so it could decide whether or not it wanted to bid just a tiny bit more in order to win an impression after the auction had already taken place.

And Google's own employees recognized that last look gave AdX a significant informational advantage, and that this was a very powerful advantage that Google was able to grant to itself because of its control of these products.

Sell-side Dynamic Revenue Share, as reflected in the bottom exhibit, for instance, was just another way for Google to exploit the fact that it had this last-look advantage, because it could also choose to modulate its take rate to try to win even more impressions. And this was something that only it was able to do because it was able to give itself the privilege of going last.

And Google has suggested, both with respect to first look and last look, that there were a variety of obscure or poorly understood work-arounds for publishers to try to get around first look or last look. And the evidence showed that for a variety -- and that's essentially what their responses boil down to in their papers.

And the evidence showed, first of all, that Google's publisher customers either weren't aware of those work-arounds or did not view them as viable alternatives, but I think a broader point that's worth making is that the fact that we're even having this conversation about Google saying, well, maybe our customers didn't like this conduct but there were a variety of complicated and convoluted work-arounds that they could have used to get around the

things that we're doing to our own customers is illustrative of sort of the heart of the problem in this case, which is that Google is knowingly taking actions that it knows that its customers do not want and do not like in order to benefit the dominance of its own tools.

And just one sort of closing comment about first look and last look. With respect to Professor Milgrom's testimony, first of all, Professor Milgrom recognized that it was better for publishers through header bidding to get more real-time bids. He acknowledged that during his testimony when discussing whether header bidding was a good idea. And Google's conduct was in many ways aimed at trying to frustrate the results of header bidding auctions. I'll also note that Professor Milgrom's testimony, he expressly did not offer an opinion one way or another about whether first look or last look harmed competition.

So I do think it's worth remembering that despite -- you know, he testified about first look and last look, but he doesn't have an opinion about whether or not they're anticompetitive, and the facts bear out that they were, in fact, anticompetitive.

And I'll just pause briefly on Project Poirot. There was a lot of evidence at trial indicating that Google -- one of Google's goals was to "dry out" header bidding exchanges, and that's reflected in PTX 426.

And so what we saw in Project Poirot, as well as their other conduct, is that they used their control of a variety of different tools to take actions wherever they could to try to reduce the scale and revenue of exchanges that were participating in header bidding. And Google acknowledged that Project Poirot was actually quite effective by increasing spending on AdX by 7 percent and reducing spend on most other exchanges. And we've addressed in our papers at paragraphs 342 to 345 some of Google's counterarguments on Project Poirot, and in the interest of time, I'll move on for now.

And the only thing that I want to mention about UPR that I didn't cover before when we were discussing it is Google has suggested somehow that by taking away its own customers' freedom of choice to set different floors for different ad exchanges, that that was somehow better because it was simpler for its publisher customers. But that is essentially Google saying to its own customers Google knows best. But that is not accurate. Competition knows best. Freedom of choice knows best. And so it's actually illustrative, I think of Google's approach to its conduct in these markets, that it is suggesting that simplicity is an end in and of itself when it's taking away its own customers' freedom of choice. Certainly eliminating all options and all competitors would also be simpler, but

that's not something that would be tolerable under the Sherman Act.

One of Google's main legal arguments is that virtually everything that they have done in this case is a refusal to deal under *Verizon Communications v. Trinko*. So I do want to spend a little bit of time addressing that argument in some more detail.

And the first reason why Google is not correct is, to go back to the *Duke Energy* case, which specifically said that when you have an atypical complex exclusionary campaign like we have here, it's not appropriate to break up conduct into little pieces and examine it in isolation under these categories of refusal to deal or product design or what have you. So that's reason Number 1 why we don't even get to this refusal to deal analysis that Google is trying to persuade the Court to engage in.

But even if the Court were to look at the conduct piece by piece, I think it's essential to look at what *Trinko* was actually about. What were the actual facts of that case. And what it was about was Verizon Communications' unilateral refusal to build infrastructure to connect up to one of its rivals in a particular market, in that instance it was a telephone company. And the conduct in *Trinko*, none of it was customer-facing.

The conduct here is customer-facing, and that's

why it matters that the doctrine is properly referred to as a refusal to deal with rivals. There's no doctrine of lawful refusal to deal with customers, for instance. And all of the conduct that we've talked about in this case from Google is customer-facing. In UPR, it took away its own customers' freedom of choice to set different price floors among different ad exchanges.

In first look, it prevented its own publisher customers from choosing to give a different ad exchange the ability to bid first before Google. Similarly, with last look, taking away its own customers' ability to conduct a header bidding auction and then have the winner of that auction be the advertiser that actually wins that impression. Every single instance of conduct is Google versus its customers. We are not talking about Google's conduct versus its rivals.

I think where Google really gets into trouble is what it suggested is any conduct whatsoever that has some kind of downstream effect on Google's relationship to its competitors is necessarily a refusal to deal, and, therefore, is per se lawful. But if Google were correct about that, then virtually all conduct would be a refusal to deal because anything that a firm does that affects competition is going to have a bearing in some manner on its interactions with its competitors. But really the question

for the Court to answer is, is the conduct customer-facing? And in each instance, the answer is yes, and that's where the refusal to deal analysis is --

THE COURT: Well, don't you think with the exchange, there it would seem to the Court that there definitely is competition with the rivals. There were other attempts to bring in exchanges, and that would be a key fact in this whole ad stack. I mean, that's the connector. That's where the fees are collected, it's at that point. And I think it's hard to say that that is actually addressed at customers; that's addressed at rivals.

MR. TEITELBAUM: I would respectfully disagree with that, because what the conduct actually is is a -- another way of looking at this, and this was something that I was going to say momentarily anyway, which is that a conditional refusal to deal, which -- also known as a tie, is definitionally not a lawful refusal to deal under *Trinko*. And the conduct that's relevant -- most relevant for the ad exchange is Google is saying to its publisher customers, not to any competitors, it's not talking to its competitors, it's saying to its own publisher customers, if you want access to our ad exchange with real-time bids, then you must use our other product, publisher ad servers in DFP. And so that is not a unilateral refusal to deal with a rival; that is a tying restriction being placed on a customer.

And, I'm sorry. I didn't mean to interrupt.

THE COURT: No, that's all right. Go ahead.

MR. TEITELBAUM: And Footnote 8 of the *Kodak* case that we cited, the Supreme Court *Kodak* case also gets at this, which is it's always possible as a matter of semantics to rephrase a refusal -- a tie as a refusal to deal, because you could say I'm not going to deal with anyone who doesn't also -- in Product A who doesn't also buy Product B from me. But that's just a semantic game that's rephrasing a conditional refusal to deal to make it sound unilateral. And so I'm not going to be as articulate as the Supreme Court was in Footnote 8, but I would just commend that particular portion of *Kodak* to the Court because they address that argument spot on.

And then I think even if we get to a point where the Court thinks that we might be dealing with some conduct that might properly be considered a unilateral refusal to deal, that's not the end of the analysis, because predatory conduct or conduct that's taken with anticompetitive malice, even if it is a refusal to deal still violates the Sherman Act. And so that's a holding that's reflected in the *Aspen Skiing* case, for instance. It's reflected in the *Viamedia* case from the Seventh Circuit more recently. And also within *Trinko* itself that talks about a firm having dreams of monopoly as being an exception to some sort of immunity

or ability to not be held accountable under the Sherman Act. And what we have here is a tremendous amount of evidence through Google's own internal documents -- and I see that I'm at roughly 60 minutes, so I'll be cognizant of that.

THE COURT: Yes.

MR. TEITELBAUM: The documents are rife with evidence of anticompetitive malice.

And so I have three slides here I'm not going to read to the Court in the interest of time. But as I said before, Google's employees had a tendency to say the quiet part out loud in terms of what their intent was. And so will do to display to what Google did to search is an example of anticompetitive malice.

This recognition that UPR, by itself, makes it look extremely self-serving, at the bottom there, PTX 762, is an acknowledgment of anticompetitive malice. This all-or-nothing proposition in PTX 124 is an example of anticompetitive malice. Parking a competitor, AdMeld, once again, an example of anticompetitive malice.

And so even if we get to a point where the Court's analyzing this conduct under the refusal to deal framework, the plaintiffs still prevail, especially when you consider that under specific *Aspen Skiing* factors, for instance, the *Aspen Skiing* case talks about breaking off a prior course of dealing as being particularly illustrative or probative of

anticompetitive malice. And that's exactly what we have with UPR, where Google took a freedom of choice that its customers once had in being able to set different price floors, and it took that away in 2019. And so that would be, for instance, directly responsive to some factors that the Supreme Court has set forth.

Mindful of the time, I'll also just briefly cover Google's suggestion that its conduct is properly considered a product design. But the cases that we cited in our papers explain that the standard is essentially the same for evaluating a product design versus any other type of conduct. The question is whether it harmed competition and whether it coerced consumers and impeded competition, and then whether or not there's a valid pro-competitive justification. And for all the reasons that we've already covered, all of Google's conduct has done those things.

And there is not a computer code exception to the antitrust laws where Google can say, well, it would require technical work for us to do something different, and, therefore, it can't be a violation of the Sherman Act, but that's just not how the law can work. Because of course Google expended technical work to harm competition in the first place. So whether it's going to take work to undue the harm that we've done is just not the right question to ask.

As far as pro-competitive justifications, I'll just touch on a few things. First of all, Google has suggested in its papers that we might bear the burden to disprove a valid business reason under Fourth Circuit precedent. And we've covered that to some degree in our papers, but I'll also just note, this is a case that we did not cite in our papers, but it's worth noting. The *Dickson v. Microsoft Corporation* case from the Fourth Circuit expressly cited the D.C. Circuit *Microsoft* case in Footnote 16 for the proposition that the burden shifts to the defendant to proffer a pro-competitive justification for its conduct. So that's just further confirmation that the burden that lies in the first instance with Google to support its pro-competitive justifications.

And just turning briefly to its cybersecurity -- general cybersecurity arguments. We covered this a bit before. Google suggested, well, we had to do this stuff because of cybersecurity. But the problem with that argument is that Google's own documents, like PTX 198, where they actually talk about their decision-making process for why Google Ads does not bid unrestricted into other exchanges, they're not talking about cybersecurity; they're explaining that the reason that they're taking these actions is because they are concerned about propping up AdX's dominance. And so the documents speak for themselves in

that regard, and I won't belabor that point.

I will just also note that we have, in PTX 199 and 835, that even Google itself considered spam from third-party exchanges to be at acceptable levels and comparable to AdX. So even on its own terms, this notion that Google had to somehow restrict bidding activity into third parties because of spam is just at odds with their own documents.

Dr. Israel also primarily suggested that there's a separate pro-competitive benefit of just more generally integrating products together is, in and of itself, a pro-competitive justification.

And I would just once again in the interest of time commend to the Court, the *Microsoft* court in the D.C. Circuit confronted virtually an identical argument from *Microsoft* that there's just sort of a writ large, a generalized benefit from binding products together and providing an integrated experience. But the D.C. Circuit expressly rejected that argument because *Microsoft* neither specified nor substantiated exactly what those benefits are. Just saying it's nice to have integrated products is not good enough. And --

THE COURT: I'm sorry. But would you agree that if there were evidence that there were significant advantages to having such an integrated setup, that that

would be a significant factor for a Court to look at in terms of deciding whether or not to find the defendant a monopolist?

MR. TEITELBAUM: So while that evidence is not present in the record, I think if Google -- Google would have to show that there are sufficient benefits of integration to competition that outweigh the anticompetitive effects of that conduct. And if they could do that, that would be a relevant consideration for the Court. But it's not sufficient just to say that integration is nice for a variety of reasons; it has to be responsive to the competitive harms that Google has worked through its conduct.

THE COURT: But let's say that an entity creates the very best widget out there, there's no other widget that comes close to performing like that widget, and as a result of that, consumers want to buy that widget, and they'll pay almost any price to get it because it is absolutely bar none the best.

How do you handle that when the argument is made that that somehow is monopolistic behavior? It's anticompetitive in the sense that, you know, no one's looking at any other type of widget, this is the widget they want.

MR. TEITELBAUM: So I would respectfully disagree

that that would be anticompetitive. I think what the Court just described is competition on the merits, because it's building the best product on its own merits and having that be the reason that people want to buy it.

The problem is, Google hasn't done that. Instead of trying to build the best widget, they've pulled a variety of levers to force people to buy a widget that they don't even like that much. For instance, Ms. Layser from News Corp explained that DFP is a 25- or 30-year-old clunky piece of technology, but she's stuck with it because of the tie between AdX and DFP.

THE COURT: You know, in the very opening, I think in the first two or three sentences, you mentioned that there are better ad tech products out there. And a note to myself, what are they?

So in the record of this case, I'm just curious, can you point to what you would describe as the better products that are out there?

MR. TEITELBAUM: So I think there's a variety of different examples. For instance -- well, part of the problem is that a lot of products that might have been better died out because of their inability to compete with Google. But I think examples of that would include Kevel. For instance, we had a witness from Kevel here testify about his efforts to compete with Google in the publisher ad

server market and to provide a variety of functionality to publisher customers that Google wasn't offering. But what he explained was he wasn't able to succeed. Because of the tie between AdX and DFP, he's not able to persuade customers not because his product isn't better, but because of other anticompetitive conduct that Google is engaging in, he cannot bring those customers over to him. And we had similar testimony, for instance, from Equativ, another publisher ad server. It was deposition testimony who explained the very same thing. Or just from the perspective of a publisher, for instance, that Mr. Wolfe or other publishers talked about the possible decision-making process of we would like to use a different publisher ad server, but we just can't get out of this tie that Google has imposed on us.

And I think it's also notable that the Court asked about better ad exchanges. Almost all of the other ad exchanges, with the exception of that one niche player with 1 percent market share, charged less than AdX. And so that's an example of a better product because it's cheaper than AdX. Cheaper than that 20 percent take rate. And so -- but publishers are nonetheless stuck using AdX because it's the only way that they can get Google Ads. So, for instance, Rubicon, Magnite, Exchange, PubMatic, all of those would be examples of competitors that customers might like

to use because they're better, but they just can't.

THE COURT: You know, if one looks at the totality of the evidence in the case and the totality of the witnesses called, certainly by the plaintiff, it does look as though the heavier emphasis is on the exchange publisher side of the stack. And, you know, your argument has been that you feel we are dealing with three separate tools. But only two of those tools have really, really been, it seems to the Court, the main focus of this case.

Do you want to talk a little bit more about the ad -- Google Ad aspect and why you think that that also is so detrimental to the consumers in that group?

MR. TEITELBAUM: Absolutely, Your Honor.

So there's a couple of reasons. So first, Google Ads is a critical part or a critical contributor to why the tie between AdX and DFP is so devastating. So I know that's a publisher issue, so I'm not trying to get us back to publishers.

But also from the perspective of advertisers, they would, for instance, like to have a product that bids unrestricted into a variety of different exchanges. But instead with Google Ads, as Google's own employees recognized, they are restricting Google Ads' bidding activity purely in order to support AdX's dominance, even though they, themselves, recognize that they would be

providing a better product for their advertiser customers if they bid into all exchanges on an unrestricted basis similar to the way other tools do. So I think that's one example.

The other example that I would point to the Court is Unified Pricing Rules, which is that when Google took away from its publisher customers the ability to set different floors for different exchanges, it also -- well, or at least took away their ability to floor AdX higher than other exchanges, they also took away their ability to floor Google Ads higher than other advertiser buying tools. And what that meant is it took away some of advertisers' freedom also to be able to make better deals with some of Google's competitor ad exchanges or competitor publisher tools. And so that also -- UPR is a good example of conduct that very directly harmed both publishers and advertisers.

And I would also just briefly -- just commend to the Court also Mr. Simcoe's -- Professor Simcoe's testimony that the harm generally from the overcharge from AdX does fall both on publishers and advertisers. And even Professor Chevalier agreed that an overcharge would be borne at least partially by advertisers and publishers.

So mindful of the time, I would like to reserve the balance of my time for Ms. Wood on rebuttal.

But I'll just close by saying that Google is not the defendant in this case because of its size, and we are

not here to enlist the Court in some sort of forced sharing or central planning function with respect to the ad tech ecosystem. We are here to hold Google to account for its rapacious anticompetitive conduct spanning over a decade in the markets that we've been discussing. And the result of Google's conduct has been less innovation, less consumer choice, and higher prices in these markets, and these are the markets that make the free and open Internet possible.

And so on behalf of the United States and the plaintiff states, I'd ask that the Court hold Google accountable for the harm that it has caused to the competitive process in these markets and find Google liable on all of the Sherman Act claims in the amended complaint. Thank you.

THE COURT: Thank you.

Well, we're almost on the same pattern that we were during the trial. So we're going to take a mid-morning break until 11:30, and we'll hear Google's entire argument.

(A brief recess was taken.)

THE COURT: All right. Ms. Dunn.

MS. DUNN: Thank you, Your Honor. And with the Court's permission, we would like to hand out binders.

THE COURT: Of course.

MS. DUNN: Thank you.

THE COURT: Are the folks on the right side of the

courtroom, are you all having trouble hearing the lawyers as well or just the Court? I understand some of you are having trouble hearing. You're okay now? All right.

MS. DUNN: I can try to be loud also.

May I proceed?

THE COURT: Yes, ma'am.

CLOSING ARGUMENT ON BEHALF OF THE DEFENDANT

MS. DUNN: May it please the Court.

I will start with where I think the antitrust laws require us to start. To rule for the plaintiffs in this case, the Court would have to overrule not one but two important controlling lines of Supreme Court precedent, the law of two-sided transaction platforms as articulated in *Ohio v. AmEx*, and the law of refusal to deal as set forth in *Trinko* and *linkLine*.

The law recognized two-sided transaction platforms and protects integrated systems because they help encourage investment, integration, innovation and the network affects fuel economic growth.

In opening statement, this is what the plaintiff said their case was going to be about. They said when one company controls an entire marketplace, no one wins except the monopolist. Prices go up, innovation goes down, and the industry as a whole suffers.

Well, you have to ask, what happens when prices go

down? Innovation goes up, and the industry as a whole benefits, because that's certainly what happened here. Because of the investments by Google and its competitors, digital ad spend grew 18-fold between 2008 and 2022. Google's prices went down, and the number of quality of transactions went through the roof.

This is the exact opposite of proof in a monopolization case. And even though Google didn't have to, even though the law would have expressly protected a decision not to do this, Google spent billions of dollars and countless software engineer hours making its products interoperable with rivals, which grew the pie for everyone.

Now, plaintiffs admit that they want access to Google's customers and technology that is comparable -- that's their word -- to Google's own access. And in the words of plaintiffs' witnesses on the slide, they want the technology and the customer base that Google built to be community property. Those are their words.

But to turn Google's innovations and customers into community property, plaintiffs would need to convince this Court to dispense with an approach to antitrust that has been a fixture of the American legal system for years. DOJ antitrust officials have publicly stated that that's their intent, and they bring to this Court arguments that have been rejected elsewhere.

Over the course of this trial, plaintiffs presented no testimony from any small business, either publisher or advertiser. They demonstrated no products, either Google's or anyone else's. They intentionally avoided calling as witnesses Google's biggest ad tech competitors, including Microsoft, Amazon, Meta's corporate representative, and Criteo. And they failed to rebut the testimony of a Nobel Prize winner in auction design. The law simply does not permit, and the evidence does not support, what the plaintiffs are seeking in this case.

Google's conduct in this case is a story of innovation in response to competitive forces. Out of nearly 1,000 product launches a year, we've put on this timeline just the few product designs and events that plaintiffs have focused on. And many of the challenged acts in this case are no longer in effect, and the most recent occurred in 2019.

So first let's start with the DoubleClick acquisition in 2008. Here's how the plaintiffs talk about it in their findings of fact. The acquisition allowed Google to further enhance the market power of the DoubleClick ad server over its pool of publisher customers by connecting those publisher customers to Google's substantial advertiser base.

So this, in plaintiffs' view, was the original

sin, connecting Google's existing advertiser customers to third-party publishers because it was in the customer's interests. And, notably, plaintiffs are complaining about Google's decision to open up its system to third parties to benefit its customers.

Plaintiffs next complain about Dynamic Allocation, which they say gave Google a first look. Well, as Professor Milgrom pointed out, one of plaintiffs' biggest problems in this case is that they ignore historical context.

Dynamic Allocation -- invented by DoubleClick, not Google -- put competitive pressure on the existing waterfall. It was so innovative that at first, as Mr. Mohan told the Court, they had to go around to conferences and persuade people to use the technology. And he said that Dynamic Allocation made inventory 136 percent more valuable. He described it as kind of a watershed moment for the industry.

An even bigger improvement is what came next, which Mr. Mohan described as flying the plane while putting on the engines. In other words, when Google rebuilt the nascent AdX exchange with real-time bidding while continuing to operate it. With the benefit of real-time information, Google was able to help publishers increase their yield by a whooping 188 percent.

Now, as real-time bidding exploded in popularity,

Google built out a DSP called DV360. And now Google was offering two different options to its customers, one, a curated and heavily-vetted ad network called Google Ads; and a DSP, which gave Google's advertiser customers access to over 100 rival exchanges. That's called choice, and it's a good thing.

Brad Bender, who was at the time in charge of Google's display business, explained some customers choose to use Google Ads, some choose to use DV360, and some choose to multi-home. And what Google wanted was to find the best way for its customers to achieve their goal. And so this is an example of Google increasing customer choice in response to competition. Plaintiffs say this is not a good thing and that the products should be similar.

Then, as the Court well knows, in 2014, header bidding transformed the industry by allowing multiple exchanges to compete head to head in real time. Publishers quickly figured out that they could choose to use Dynamic Allocation to run an auction in AdX after the header bidding auction. And Google had a competitive response to header bidding, which was called open bidding, which allowed exchanges to compete head to head in real time.

As Jonathan Bellack testified, Google responded competitively because our customers were reporting that this technology that they were finding valuable. For us to not

respond by trying to deliver value would give them more reasons to try other things.

And Google witnesses Sarah Stefaniu and Nitish Korula demonstrated for the Court the actual products, and we all saw how Google, this allegedly terrible and exclusionary monopolist, actually facilitates Prebid and Amazon header bidding on its own platform.

Now, by 2019, things had become so complicated that Google addressed the chaos on its own platform and launched the Unified First Price Auction and the Unified Pricing Rules, which some publishers didn't like, but many actually embraced because they made sure that the highest bidder won. Now, again here, output expanded and publishers made more money.

Now plaintiffs say that the UFPA is what we should have been doing earlier, but they don't say when. And the problem is, Your Honor, is this is not how innovation works. You can't just skip to the end. The ideas of the past are what lay the groundwork for the improvements of today, which in turn creates the opportunity for the innovations of tomorrow.

And as Professor Milgrom said, at the time that each of these changes occurred, they were improvements, and he said they benefited Google's own customers, either advertisers or publishers or both.

And the Court has seen this chart before. For all its innovation and billions invested every year, only a small share of the exponential growth in U.S. display advertising spend accrues to Google. And that's 10 percent, and the 10 percent includes YouTube, which plaintiffs exclude from their markets.

And as output has dramatically increased, prices have fallen. On this slide is public data that shows ad tech fees as a percentage of ad spending, which has been declining since 2014. In 2022, the industry average was 42.3 percent. And the evidence showed that Google's end-to-end take rate, which has also been declining, is much lower than the industry average, around 31 percent.

And as output increased and prices have fallen, quality has improved. Click-through rates have gone up, cost-per-click has gone down, and that means advertisers, who everyone agrees care about getting a great -- greatest return on their investment, have been able to do that. And the data has shown also that publishers are making more money per ad. And because output has gone up, they're selling more ads, and that makes them even more money, and they increase their yield. So output up, prices down, quality increased, the plaintiffs cannot make a case -- the exceptional case for governmental interference by declaring an antitrust violation in this market.

And even though it was a long time ago, the Court will recall that in opening, we told the Court that the evidence would show plaintiffs' case fails for these three independent reasons. And, today, we are here to confirm that the evidence did just that.

We are -- I'm going to spend my time this morning talking about, first, plaintiffs did not prove their markets or market power, including because their markets are foreclosed by *AmEx v. Ohio*.

Second, that plaintiffs did not prove anticompetitive conduct, including because Google's conduct was per se lawful under *Trinko, linkLine* and other cases in that line.

And third, that plaintiffs did not prove anticompetitive effects, and there were pro-competitive effects of Google's conduct.

Now, before I do all of that, I just want to say, as we saw this morning, plaintiffs do rely a lot on picking sentences out of documents, and all of these have been addressed in our findings of fact. So today, I'm just going to make the point by looking at what is probably plaintiffs' favorite document, the one about the stock exchange.

Elsewhere in that document, Jonathan Bellack, who wrote that sentence that the plaintiffs like so much, says his thoughts are late night jetlag ramblings that might not

make the sense in the light of day. He also says he's in active ideation mode, so all kinds of ideas are flying around.

In another document that the plaintiffs like, they pick out the statement of Mr. Blais, who says here that he has basically zero experience and is an engineer who knows very little about anything.

They showed you today not one but two documents from a speech by David Rosenblatt. He was at DoubleClick, came over to Google and left three months later. So he was at Google for all of three months. And if you looked at the next sentence that he said after he talked about search, he said they wanted to emulate search in that they wanted to make things easy to buy and standardized metrics and definitions so they're not reinventing the wheel.

We saw through this trial that, at Google, anyone was welcome to share their thoughts at any time over email, and there were robust debates and idea sessions. And that doesn't mean that these things actually happened, necessarily; sometimes it didn't mean that they were considered. So --

THE COURT: Well, you know, now you're getting close to the very significant argument the plaintiffs' made that they did not rise in their opening statement today about the problem with the way in which the history was

encouraged to be shut off. And as you know, you're into now an area where I know Judge Mehta sort of punted that issue, acknowledged the problem, and did not feel it made a significant difference in his analysis. But it's out there. And so I think you're a little bit on dangerous territory when you start talking about what the folks at Google were thinking or saying because we don't know all of what they were thinking or saying.

MS. DUNN: Understood, Your Honor.

And I will just say -- and you raised Judge Mehta's view. In this case -- part of my point to the Court is we're going to show the full context. We're going to show the competitive analysis, we're going to show witness testimony, we're going to show the competition landscape, we're going to show data. This is a huge monopolization case, and there's Supreme Court precedent that's on point, there's data that's on point, there's analyses that's on point. And I think my point to the Court is that in the full context of everything to decide the monopolization case, we believe that there is ample evidence to do that. I will not belabor this issue. Your Honor has seen the legal hold and has commented on that and heard from the witnesses, and the Court has everything the Court needs to make a judgment in that regard.

So moving on to the plaintiffs' failure to prove

their markets or market power. So as I mentioned, plaintiffs' case is foreclosed by Supreme Court precedent about two-sided transaction platforms.

THE COURT: Well, let's talk about that.

I mean, I've read that *AmEx* case more times than I probably should have. But it's an interesting case because it's not dealing with any type of dynamic programmatic purchasing; it's looking at the one-on-one transaction when somebody who has an AmEx credit card goes to a merchant and, you know, engages in a transaction. It's one-on-one.

We're dealing with a completely different setup here, it seems to me when you're dealing -- I understand there's a certain attraction, and frankly earlier on in the case, I thought that that was a very attractive argument. But the more I've looked at the case and compared it to the facts and the realities of this case, the more problems I have in saying how it really does map onto the -- the way this -- the way these transactions operate. All right.

So I want you to really try to explain to me why you think that that is the correct legal way of looking at this case.

MS. DUNN: Your Honor, I would love to do that, and I hope that -- we actually have prepared slides that hopefully will help the Court, and I will also answer any other questions that the Court has. We think *AmEx* is

completely on point. And a key issue, and what *AmEx* itself is a distinguishing feature and an important distinction is indirect network effects, which nobody disagrees are present here, and that the jointly-consumed transaction, which there's expert testimony on both sides, is between the advertiser and the publishers.

So the other thing that's happening is I would beg to differ with the idea that there's really one-on-one transactions, necessarily, in the credit card industry. I think it's a very -- in both cases there are tools, and the point of the tools and the setup, including the cards, the merchant readers, all of that, the point of the tools and the tool pathway is to facilitate a transaction between the buyer and the seller. And without -- the point that *AmEx* is making is that if you have a tool on one side but nobody's willing to make a sale on the other side, then it's useless to have a tool on the one side. And I -- you know, hopefully as we go along, I'll answer the Court's questions.

But what I read as the animating feature of *AmEx* is this idea that you can't look at a two-sided market at one side in isolation when the success of the one side, the buyer, depends on the success of the seller, and the key thing was the indirect network effects, but we can talk about that as we go along.

So *AmEx* itself -- and I've read it maybe not as

much as Your Honor, but also quite a lot -- says that two-sided transaction platforms facilitate a single simultaneous transaction jointly consumed. And, in this case, virtually every witness talked about buy-side and sell-side facilitating a single simultaneous transaction between buy-side and sell-side.

So if you -- in the way that Your Honor raised the question, you know, you have a merchant and a credit card holder, and they are making a connection through these tools. Here, you have a publisher selling inventory and an advertiser who wants to buy inventory, and they're making a connection through the tools. And the evidence really supported that description.

So the experts, including plaintiffs' experts, uniformly agreed -- and I think this is key to Your Honor's question -- that the jointly consumed transaction is the match between publishers and advertisers. And we put Professor Weintraub, Professor Lee, and Professor Simcoe on this slide so that the Court could see that they are talking about the jointly-consumed transaction being the match.

So the point is that when the transaction is the match and the success of one side depends on the other, because if you lose customers on one side, the other side is unhappy because they're losing quality matches, that is indirect network effects, as I'm sure the Court knows. And

the Supreme Court says that is one of the important ways that these kinds of platforms are distinguished. And there's also no dispute in this case -- plaintiffs' experts also say -- and this is at our findings of fact, 285 -- that ad tech is characterized by these indirect network effects.

So you have the plaintiffs' own experts agreeing they're indirect network effects, and the jointly-consumed transaction is the match between publisher and advertiser facilitated by the tools.

And what I understand the plaintiffs to be saying is that, okay, well, the ad exchange is two-sided, but the place where we go wrong is that the ad server and the buying tool -- and they focus only on Google Ads -- those are one-sided. And there's no expert support for that. And the reason is that that doesn't make any sense. Because if everyone agrees that the jointly-consumed transaction is the match, all of these tools are being used to facilitate that match.

And maybe it will assist the Court. We put on this slide an illustration that *AmEx* rejected the argument that the plaintiffs make in this case that I heard them make again this morning, which is they're saying, well, on one side, there are these services offered only to publishers, and on the other, there are services offered only to advertisers.

And this was the exact same argument that was made in *AmEx* where the petitioners argued that card holders were offered certain services, and merchants were offered certain services, but the *AmEx* Court says these separate services are provided to the cardholders and the merchants for the purposes of bringing them together on the two-sided transaction platform, and so they reject this exact argument. And we helpfully, I hope, plugged the words of this case directly into *AmEx* so the Court could see how exactly on point *AmEx* is to this case. So in each circumstance, you have one side trying to transact with the second side through the tools.

Now, the Supreme Court also rejected the other argument that plaintiffs have made, which I didn't really hear them make this morning, so I won't belabor it, which is that buy-side and sell-side tools are complements, not substitutes. And that, again, was an argument made by the petitioners in *Ohio v. AmEx*, and the Supreme Court rejects it.

And I think this may also help shed some light on what's going on, the next slide, so I'm going to spend a little bit of time on this slide.

So what we saw in this case is that Google and its competitors are all talking about the single-sided market in the same way. And if you look at the top of the slide,

there's a quote from Ben John. He's the Microsoft corporate representative. And what he says is -- he doesn't start with a few large publishers like the plaintiffs do. He says you start with the advertisers because they're the ones who are paying the check. They're paying the money. And he says you need to have demand to fuel the ecosystem and that is what has the effect of scaling the rest of the platform, including the publisher side.

And Mr. Farber, who's Meta's corporate representative, said the Meta Audience Network considers any player who will consolidate demand from different advertisers to be a competitor, and he says if Meta can provide better value, meaning that users are going to see their ads -- see the ads of the advertisers because of Meta's platform, advertisers will come to them. And if Google can, the advertisers go to Google.

And you can see that Scott Sheffer is saying essentially the same thing. If advertising money is flowing to Meta or Amazon or Yahoo, that is money that's not coming to Google and Google's publishers.

And so when the players in the industry talk about the field of competition, they're talking about a two-sided market where the fuel is coming from the demand side in the form of the money, and that feeds the sell-side. And that, in turn, grows the demand side and so on and so on in the

feedback loop that all experts in this case agreed existed.

And all these companies are doing, including Meta, including Amazon, including Microsoft, and others, is they're all competing for the spend because that is what powers the platforms from the advertisers on one side, who want to connect to the publishers on the other, because that is how people are going to see the ads.

And I don't know, Your Honor, if that assisted the Court, but I think looking at how these market participants describe this makes it clear that what they're really talking about is a two-sided platform. There's nobody saying Google's a monopolist in the exchange. Like, nobody's saying that. There's not an expert that said that or fact -- the experts said that. But there's no fact witness that thinks about it that way. This is how the fact witnesses talk about the competition and what they're competing for.

Does the Court have additional questions on --

THE COURT: Go ahead.

MS. DUNN: Okay. All right. And so to wit, Microsoft's ecosystem looks almost exactly the same as Google's does, except Microsoft's has advantages that Google's does not, gaming in the form of Xbox, streaming in the form of Netflix where Google actually lost the deal to Microsoft -- the Court heard that -- social in the form of

LinkedIn. And this diagram was authenticated by Microsoft's corporate representative in his deposition, and it clearly has a buy-side and a sell-side and tons of inventory, and they are competing with Google to attract those advertisers into this ecosystem.

And I think there are a few slides in this case where we look at them and say what are we doing here? Google is competing with one of the largest companies in the world, which has an ecosystem that looks pretty much the same, except that company has advantages that Google doesn't have. And notably, I don't think Microsoft was mentioned once this morning by the plaintiffs, and they, obviously, did not call Microsoft as a witness in this case.

Now, Criteo -- which probably no one here had ever heard of before this case -- has proprietary user commerce data from over $1 trillion in online sales annually. It has an enormous amount of data. It's another major competitor with a huge pool of advertisers and an end-to-end platform. And this is Criteo's own document showing that it has an integrated platform with a buy-side and a sell-side. And just like those other companies we all know about, it is competing for the advertiser demand.

And Criteo is another what-are-we-doing-here moment because plaintiffs are saying that Google and Criteo are the only two competitors in what plaintiffs call an

advertiser ad network market. And no one else thinks that market exists, including Criteo.

This is Criteo's 10-K filing where it tells the SEC that it is part of one complex, rapidly evolving, highly competitive market where it competes on both the buy-side and the sell-side against Google, Amazon, Meta, Microsoft, and any others -- many others.

And so the plaintiffs say, well, we just rely on Dr. Israel, but that's not true. We relied on testimony of witnesses, SEC filings, internal documents not just from Google but elsewhere, and we relied on data of substitution.

We also rely on their expert, Professor Lee. Professor Lee acknowledged that Meta and Amazon have ad tech that includes all the functionalities of the tools at issue in this case. And they use the tools to attract advertisers away from competitor platforms, including Google. The tools then enable advertisers to buy, in the case of Meta and Amazon, on Meta's and Amazon's owned-and-operated properties. And Google also does this.

And also like Google, Meta and Amazon enable advertisers to buy on third-party properties. So in Meta's case, they're buying on third-party apps; and Amazon, as the Court knows, has a DSP that buys on third-party exchanges that the plaintiffs don't mention, as well as a header bidding wrapper called TAM.

And so plaintiffs are ignoring all of this competition that these companies are recognizing and that their expert recognized of these huge companies that Google is competing against.

We also had heard a lot of evidence that underscored the two-sided market that many companies with these huge pools of advertisers, like The Trade Desk and Yahoo and Criteo and Magnite and PubMatic, are all moving and have already started this toward an end-to-end stack that bypasses these individual components, and that is called supply path optimization.

And plaintiffs' answer to supply path optimization, which so clearly illustrates that there is a two-sided market between publisher and advertiser, is to say, well, that's very limited. But their own witnesses -- this is one example. PubMatic, the CEO says right now SPO is 35 to 50 percent of their platform activity and in the next several years will be 75 percent. And you can see this picture on their -- in their own document that shows their tools. Their pathway is connecting the publisher to the advertiser to make the match, the jointly-consumed transaction.

The Trade Desk similarly testified their tool is called OpenPath, and it's integrated with some of the biggest publishers, including Reutters, The Washington Post,

Gannett, USA Today, Condé Nast, BuzzFeed, The LA Times, and Forbes.

So this slide shows why the plaintiffs want to run away from *AmEx*, and that is because, based on the data, Google's share in a two-sided market is decreasing and has been steadily decreasing. And this is just not what monopolization looks like.

And the other thing that was pointed out in this trial is that as Google's share is going down, its revenue is going up, meaning that the industry is growing much faster than Google's piece.

Now, also on the topic of two-sided markets, plaintiffs' case relies very heavily on their assertion that Google charges super competitive fees. But as the Supreme Court says, that a two-sided market requires consideration of the market as a whole and fees must be assessed end to end.

And when fees are assessed end to end, Google's fees are among the lowest in the industry. So Google's fees are the darker blue bars towards the bottom. And that's because when you have an integrated system, one of the benefits is lower prices because you don't have multiple companies coming in to take a cut. And so this chart and data were not disputed by the plaintiffs.

Now if the Court would like, I can address the

estoppel argument. First of all, none of the prongs of the Fourth Circuit's test for estoppel were met. This was a motion to dismiss where Google made legal arguments, and we cite in our papers that it is -- motions to dismiss are decided, as the Court is aware, on legal arguments.

Also, the arguments that are made in the motion to dismiss brief say "absent other allegations not made here." But I think more importantly, with respect to the prongs, the court never ruled in N.D. Cal. on this. There was a case management conference where there was an agreement by the plaintiffs to pursue only a single-sided market. And so this argument, which was a legal argument, was never adopted by the court.

But, in any event, regardless, Google would not be estopped from arguing that plaintiffs' market is fatally narrow and gerrymandered, and *AmEx* would still bind this Court. So we don't think estoppel should hold up the Court from ruling on this.

And having talked about the two-sided market, which I think will come up again, I'd like to address a couple of reasons why all of plaintiffs' market fails because there are a couple of overarching reasons, and then I'd like to address the individual alleged markets.

So the first overarching reason that all of plaintiffs' markets fail is that they gerrymander out

substitutes. And Professor Lee, plaintiffs' expert, recognized substitution, including with Meta and Amazon. That's what he says here in his testimony. But he chose not to analyze it, as he also concedes.

And in the *Satellite Television* case, the Fourth Circuit said it's the plaintiffs' burden to show that substitutes should be excluded from the market. And so Professor Lee's concession that he recognized substitution but did not analyze it is going to be very damaging under that Fourth Circuit law.

So Professor Lee's answer to this is, well, he meets that burden with the cellophane fallacy. But we think the Court should reject this reference to the cellophane fallacy for the same reason that Judge Mehta in search rejected it as applied to Amazon. Amazon is not a poor substitute. It's not like wrapping your sandwich in a newspaper. And neither is Microsoft or Meta or The Trade Desk or Criteo or any of these other enormous companies against whom we compete.

Now, there was an enormous amount of data that we showed the Court in this case about substitution, and it all went unrebutted. Here's a chart that shows that even before Google was alleged to have monopoly power, people were substituting from web to apps and then later to connected television. And advertiser dollars, which the companies are

competing for, have all followed these user eyeballs.

We also saw dramatic substitution to social media, also beginning before Google allegedly had market power. And we presented at this trial the same marketing funnel that Judge Mehta relied on in the search case when he was talking about interchangeability. That is Lowcock Demonstrative 2. And that marketing funnel that the search case relied on shows social and display are substitutes because they have the same purpose, upper funnel purpose of getting -- of increasing awareness.

And the plaintiffs in this case have showed you no data on substitution at all, which is truly unheard of in an antitrust case. They showed you this morning testimony of a witness that referenced the funnel, but they didn't show you the funnel or note that the funnel puts social and display in the same place. And I won't go through all of this today, but at 425 and 432 of our findings of fact, the witnesses that they quote today as not talking about substitution do, in fact, talk about this very substitution. And that also was not shown to you this morning.

We also saw substitution evidence with respect to particular competitors. So we saw substitution with respect to Meta, which is the largest advertising platform in the world. And its share went up, up, up, up, up and started to decrease in recent years.

TikTok, also a new market entrant with a huge pool of advertiser demand, and they didn't enter the market in 2008; they entered in 2018. And the growth is astronomical, and we also saw substitution to retail, which, of course, includes Amazon.

Now, in the search case, the court included Amazon in the search ads market and called Amazon a well-resourced market entrant with demonstrated growth. The same is true here. And I didn't hear plaintiffs talk about Amazon, but they did put up this diagram that we've seen throughout this trial, which is both simplistic and inaccurate of these three little boxes. And you can see. This is just a visual depiction of all the ways where, for example, they tried to gerrymander Amazon out. And we could have made slides like this for the other companies too.

But all of Amazons' tools appear just outside of plaintiffs' markets, like somehow Amazon, one of the largest companies on earth, is just on the outside of all of this looking in. But this is not commercial reality, and that is corroborated by the many documents we saw talking about competition between Google and these other companies reflecting industry recognition.

This is an example from May of 2018, and the plaintiff said, you know, we don't show any evidence that these are competitors and product markets. This is

recognizing that Amazon is encroaching on Google's core business, the business of connecting advertisers and publishers. This is -- and we've listed the series of other documents that we don't have time to show you on the side of the slide. This is one of many documents talking about Meta as a competitor. This says Google is number two and has been since 2014.

And this Microsoft document I'm going to spend a minute on because it, I think, gives a real understanding of how competition was being viewed internally as early as 2017. So this is a memo written by Brian O'Kelley of AppNexus -- he's the CEO and founder of AppNexus -- writing to the CEO of Microsoft, Satya Nadella, about the competitive landscape in 2017. And he says, "This is an ideal time to make a big play. Amazon is stealthy, aggressive, and winning. Google is on the ropes and surprisingly vulnerable. Facebook and Apple have retrenched."

And the evidence showed after this, Microsoft did make a big play, as Brian O'Kelley recommended, including acquiring AppNexus's end-to-end stack, so that it could more intensely compete with Amazon, Facebook, Google, and others.

Now, the second overarching failure of plaintiffs' markets is that they gerrymander out other obvious substitutes, like header bidding and direct deals. And if

there was one thing we knew for sure when trial ended, it was that header bidding was a serious competitive threat. And plaintiffs hammered this during trial, but they didn't mention it at all this morning.

This is a Google document saying that Facebook or Amazon getting into header bidding was Google's nightmare scenario. And as the evidence showed, the nightmare scenario happened. Amazon and Prebid header bidding compete with Google. And this is testimony of Tom Kershaw of Magnite. He helped cofound Prebid, which is a consortium of competitors with a header bidding tool. And we talked -- plaintiffs raised witnesses at trial. Well, the Prebid board of companies that compete with Google was actually the largest source of witnesses for plaintiffs in this case. And they for some reason discount when we played major competitor depositions, but the Court is undoubtedly used to playing deposition testimony, particularly for third parties, rather than having them come to court live.

Now Mr. Kershaw in his testimony explained that header bidding competed with Google and thrived. He said it is alive and well today. And plaintiffs pointed to a 2009 document from Neal Mohan that talked about disintermediating the ad server. Well, that's what header bidding did. Header bidding did disintermediate the ad server, and it did that in the time even before plaintiffs allege that Google

had market power.

And if you look at Mr. Kershaw's testimony, he said, "It took control over the auction process that previously had been determined by what was called the ad server."

Now, in response to header bidding's competitive threat, Google did exactly what the antitrust laws would want it to do. It innovated a competitor product. And here are various witnesses, Mr. Kershaw, Mr. Farber, and Mr. Glogovsky of The New York Times talking about the benefits of open bidding. And plaintiffs said nobody said nice things about our products, but that's not true. Here they're talking about how easy it is to use and how it was faster and more efficient.

Now, plaintiffs are complaining about Google's competitive response to the competition from header bidding, but that is an amazing approach to an antitrust case, that they are objecting to competition and innovation in response to what everybody agreed was a competitive threat. And this chart shows that header bidding is winning more on DFP every year. It's percentage as of 2022 is over 40 percent. That is within DFP.

And we also saw that since header bidding became popular, AdX's win rate went down dramatically. This is plaintiffs' expert, Professor Weintraub. He says, "AdX is

only winning 15 percent of the impressions it bids on."

Now, Professor Lee never conducted a hypothetical monopolist test, but this is a real-world hypothetical monopolist test. And there's a lot of these in this case where if we had the power that plaintiffs say we had, we would be winning and not losing. So this is the exact opposite of proof of a monopolization case, and it is actually what the antitrust laws want to encourage.

Now, plaintiffs also gerrymander out direct deals. They are 77 percent of U.S. display ad spend. That's our findings of fact, 496. And they compete programmatically head to head with indirect deals for every impression.

This is a document from OpenX in 2017, which expressly says that RTB revenue -- meaning indirect -- is threatened by programmatic direct. And there was witness testimony from plaintiffs' first witness, Tim Wolfe of Gannett, that supports this. He says, "On the USA Today network, direct sales fluctuate from 25 to 45 percent of ad sales each year." And he says, "As direct sales go up, indirect sales go down." That is direct evidence of substitution.

Now, finally, in addition to gerrymandering out obvious substitutes, plaintiffs' markets all fail because their expert did not actually analyze competition in the markets that he defines. And I'll take a minute to explain

that.

So first, Professor Lee says his markets are for tools, not ad transactions. But then when he calculates market share, he calculates market share by ad transactions, specifically open-web display. In other words, his market share is not actually for the markets that he has defined. And plaintiffs stressed again this morning that the markets are for tools, but that's not counted in the market share.

And as we assured this Court in opening would happen, there wasn't a single witness in this case that defined open-web display in the way that plaintiffs are urging on this Court. So just to do a quick review, out of the agency witnesses, one said, "This is just semantics; it just means display." Another included native ads and instream video, which plaintiffs do not, and a third included apps.

With respect to the experts, Dr. Abrantes-Metz said, "Well, this was just a name for the markets that Professor Lee delineated in this case," but Professor Lee had never heard the term before. And Professor Ravi, who actually teaches and writes about digital ads, said that term distinguished between open and closed auctions to private buyers, which is not a definition we heard at any other time in trial and is not plaintiffs' definition.

So this is an industry where companies are doing

constant competitive analyses with charts and graphs, and plaintiffs are asking this Court to accept a contradictory computation that has never been heard of anywhere before. And that is problematic, but the underlying problem for plaintiffs is that every tool in this case is multifunctional, including the tools that the plaintiffs themselves identify, which we listed on this slide.

Now, when Professor Lee was asked about this, he said he never analyzed competition for multifunctional ad tech tools, but those are the only tools in this case. And he conceded in his testimony on the screen that he did not analyze the ability to monetize inventory other than open-web display and he did not analyze how customers make choices to use these tools, including the degree to which anyone makes choices based on open-web display. So it's an antitrust case without an expert analyzing how competition works in the markets that he defines.

And instead, when Mr. Isaacson asked about the failure to consider these other functions, like apps and CTV, which are very popular, he said, well, this is like an open-web display is a gas station and in-app ads are the chips. But at any time after at least 2010 or 2012, it can't possibly be that open-web display is the main event, the gas station, and in-app ads are the chips.

And just to put it another way, which is more

antitrust oriented, plaintiffs never complained -- explained to the Court why open-web display ads are characterized by anticompetitive conduct but app ads are not when the two are subject to the same pricing and the same conduct, where the same tools are used to buy and sell the same ads between the same publishers and the same advertisers for the same user to see. In other words, if open-web display is the gas station, so is apps because they are the exact same.

And apps are important, and so is connected TV. And what the evidence actually showed was that companies compete on the basis of multifunctionality and that multiple formats of ads, as stated here in this document, can even compete for the same ad slot. And we listed the other companies where the record shows that that's true, and this is competition that the plaintiffs' expert never analyzed despite defining markets based on multifunctional tools.

All right. So that brings us to the individual markets, and we'll start with advertiser ad networks. So this is another instance where Professor Lee had never heard these words strung together but used them to define a market. And just at the start, this makes no sense. Advertiser ad network makes no sense. A network has two sides, and we'll talk a little bit more about that.

But there are hundreds of authorized buyers on AdX that compete in an auction against Google Ads, and this

includes demand-side platforms, like DSP -- or DV360, The Trade Desk, Amazon, and Yahoo. All of that -- all of those authorized buyers are excluded, and that includes The Trade Desk even though The Trade Desk is a billion-dollar company and even though it is bidding into the same auction as Google Ads for impressions, as the Trade Desk witness told us on the stand.

Now, this is plaintiffs' expert Professor Weintraub's chart, and even Professor Weintraub's chart undermines plaintiffs' argument. So to begin with, it includes DSPs, and it also includes the publisher side of the ad network that plaintiffs lopped off in their market definition.

And importantly, the evidence showed that the vast majority of revenue from Google Ads comes from very large advertisers. These are the advertisers most capable of substituting to DSPs, which puts economic pressure on Google. And so, as Dr. Israel said, it doesn't make any sense to leave DSPs out of the market.

Now, plaintiffs' response to this is to focus instead on the number of advertisers who use Google Ads rather than on how much the advertisers are spending. But it is the spend that is the competitive constraint. And Google Ads has no minimum spend requirement. So what's happening here is plaintiffs are counting a lot of people

who spend very little, maybe even under $1, who are not going to put competitive pressure on Google and on that basis are leaving out DV360 and other DFPs.

And so what they're left with is their alleged advertiser ad network market which includes just two companies, Google and Criteo. And remember, Criteo itself does not agree with this. Google is the discount provider in that two-company market with prices half off or more. And so this, again, is the exact opposite of proof in a monopolization case.

Now, moving on to ad exchanges, the Supreme Court never found a party with less than 75 percent market share to have monopoly power, and the Fourth Circuit says 70 percent is the bottom of the range. And for their ad exchange market -- this is Professor Lee's chart -- plaintiffs don't allege market shares anywhere near these thresholds.

So looking at spend, U.S. market share was never more than 43 percent and has declined to 34 percent. So even worldwide, which plaintiffs believe is the right measure -- we do not -- it was never more than 49 percent and has declined to 40 percent. It's very important to note that the share is declining, which Kolon Industries and the Fourth Circuit believes is important.

And this is the exact opposite of proof of

monopolization. Andrew Casale from Index Exchange says businesses are entering and leaving all the time, and plaintiffs' response is that many of the competitors are smaller than Google. But that's the sign of a healthy market, as is also recognized in the Fourth Circuit case *It's My Party* where they talk about the Davids of the market. Small is not necessarily weak.

But another important point, looking at this in the context of a Section 2 case, is that it would be inconsistent with monopolization to charge the highest take rate in the market with the lowest alleged market share.

Now, plaintiffs talked a little bit about this quote from Mr. Casale where he said the exchange market is hypercompetitive. We do think that that is extraordinarily strong evidence against the plaintiff. But I'll also note that it's hypercompetitive today, and he's saying it was hypercompetitive with header bidding, which came on the scene in 2014 and 2015 before Google had what plaintiffs allege to be market power.

All right. Let's talk a little bit about pricing. So as the Court already knows, plaintiffs allege super competitive prices only as to AdX and not for their other two alleged markets. Now, just looking at this chart, which we've seen many times, you can tell there are some issues. First of all, AdX never had the highest price, and six out

of the other seven exchanges that Professor Simcoe looked at charge take rates above Professor Simcoe's but-for take rate.

Now, even more glaring is that Google's take rate has been the same since the DoubleClick days, and there's no dispute about that. And after rebuilding a nascent ad exchange growing its customer base -- which, by the way, plaintiffs agree that scale has procompetitive benefits and can be an indicator of quality. So after improving the quality and the customer base and the technology, the price never went up. So plaintiffs say the price didn't get better. That's not true.

Finally, even though Professor Simcoe agreed that quality affects price, no expert in this case, including him, did a quality-adjusted analysis. And the Court heard a lot actually about Google's quality differentiation, things like spam controls and security from bad actors and brand safety and making quality matches. And none of that is accounted for in this pricing analysis. And this pricing analysis is the only pricing analysis in this entire case. We submit it was discredited at trial, and there's no pricing analysis with respect to the other two alleged markets. And, in fact, at the end of the day, Professor Simcoe had to concede that even if the price is higher, it's not an overcharge.

All right. So what's plaintiffs' response? Plaintiffs' response is to say, okay, well, your prices didn't go up, but they're basically flat. And this is -- this is a chart that uses -- this is Professor Lee's own chart, and this is an extremely telling chart. So it shows that keeping our prices basically flat is costing us share -- that's what you see in gray; you see our share going down -- as are competitors -- which is the green line -- are cutting prices. So, again, this is the exact opposite of proof in a monopolization case.

All right. Moving on quickly to publisher ad servers. There's no super competitive price for DFP. It's free for most publishers. You get 90 million impressions per month for free, and businesses of any size can take advantage of that.

When the Court asks plaintiffs, well, what are the better products on the market, plaintiffs cited James Avery. Well, James Avery of Kevel actually said in this trial about DFP: "No other vendor offers such a deal." This person is potentially the best commercial for how good DFP is when it comes to value.

And for those who do pay, prices have gone from extremely low to lower. And that's reflected in this pricing chart where in 2022, it was 1.3 percent. And as this is happening, publisher output has increased across the

industry, almost a 50 percent increase. That's reflected in PTX 1277A. And so what you have is low prices and a huge increase in output.

So even if the Court were to find this to be its own market -- and we hope you won't -- it would a healthy one.

And for all the talk about how sticky DFP is, there's no evidence that DFP used its market power to create -- to increase prices in other parts of the ad tech stack, which, again, is not consistent with monopolization.

Similarly, we learned at trial from Mr. Wolfe at Gannett that DFP makes every single impression for which a unified auction is being run available to Amazon and Prebid. So we are here in an antitrust case where the first witness says Google enabled publishers to use its platform to offer every impression to its competitors.

And we also saw this. Google facilitates contracts with its rivals through its own platform. Here's the pop-up box that we showed the Court in the product demonstration. And Mr. Korula said Google does this because it's publisher customers want it, and the plaintiffs never took this on.

Now, again, in the publisher ad server market, substitution to apps is a major problem for plaintiffs because 90 percent of advertisers who buy on the web also

buy on apps and because many more people use apps than the web. We saw evidence that publishers are driving users to apps. And so, of course, publishers are not shifting all their ad space to apps, but they can shift a lot. And that constrains market power.

And significantly, what Dr. Israel said is that the question is not is every single publisher or advertiser -- or is every single publisher or advertiser going to switch or even if advertisers or publishers shift 100 percent of their spend, the question is, is there enough shifting if Google were to raise its prices? No SSNIP test done here, but if Google were to raise its prices by a large amount, would it lose revenue? Would people shift? And we did see evidence of shifting.

We also saw evidence of switching to in-house ad servers, and this, too, is gerrymandered out of the market. So we heard from multiple witnesses about very large companies that build their own ad servers, and we heard concrete evidence of switching, which is substitution. And we saw that some of these companies have gone back and forth and -- including Amazon. So Amazon used to use Google's ad server and switched to use its own and yet gerrymandered out as a substitute. And plaintiffs have no response to this.

But here's what happens when you put in the concrete evidence of switching. When you add back in

publisher ad servers -- in-house ad servers, Google is at 38 percent in 2022 and the others are at 62 percent.

And so plaintiffs' markets are so gerrymandered that we wanted to give the Court a sense of what would happen if we just add back in some but not all of the competitive constraints. And even that dramatically reduces market share well below the Supreme Court and Fourth Circuit threshold.

So if you look at -- if you just put back demand-side platforms into the advertiser ad network market, as Professor Weintraub did, it's 40 percent. And if you add nothing back into the ad exchange market, 34 percent. And if you add in just the in-house publisher ad servers where we've seen concrete evidence of switching, that's 38 percent. And then if you add all of the competitive constraints that we've talked about this morning, the numbers are even lower.

All right. So let's move on to anticompetitive conduct, and the first argument is going to be that plaintiffs' claims all fail because they challenge lawful refusals to deal. And this is, obviously, a very important argument for us.

So in describing each of the challenged acts, plaintiffs themselves used the language of refusals to deal, and we put that on the slide for the Court. So their

paragraph 105, which talks about exclusivity, they say Google controls a vital input by which they say demand from Google Ads advertisers -- that's our customers -- and that Google foreclosed this vital input from our rivals. So it's hard to imagine a clearer statement of a duty to deal.

195, they talk about AdMeld. So the problem with AdMeld is that we did not submit real-time bids, which would have required integration of our technology to rival ad servers.

Their paragraph 170 about Dynamic Allocation says that AdX benefited from real-time information, which was as a result of the integration of our ad server and our exchange, but the other exchanges, our rivals, could not.

215, which is about last look, says -- this is talking about connecting rival exchanges to DFP so publishers could use Google's real-time bidding with those exchanges.

And paragraph 307, which talks about UPR, is talking about the terms and conditions that Google applies to its own platform.

Now, under *Trinko* and *linkLine*, a court cannot compel access to Google Ad demand, which is our customers, and RTBs, real-time bids, from AdX into third-party ad servers as a means of getting Google Ad demand. Because that requires integration of our technology, and it cannot

compel, in the case of UPR, a change in our platform terms and conditions.

Now, refusals to deal are legal -- per se legal and competitive. Because, as the Supreme Court has said, they incentivize investment and innovation. And, Your Honor, we submit that -- like *AmEx*, *Trinko*, and *linkLine* -- resolve this case. And, in fact, this case, which is about real-time bidding access, mirrors the claims about auction-time bidding that Judge Mehta found were foreclosed by *Trinko* in the search case. And we've done the same thing here more or less that we did with *AmEx*.

So plaintiffs' argument is that *Trinko* doesn't apply because this isn't a refusal to deal; it's a conditional dealing arrangement. But this exact same argument was made by the Antitrust Division in the *Facebook* case before Judge Boasberg just a couple of years ago. And we put on the slide the words of DOJ's amicus brief in that case, which makes the exact same argument plaintiffs are urging on this Court. And as you can see, both the district court and the D.C. Circuit expressly rejected what they called, quote, this conditional dealing argument. And they saw this conditional dealing label for what it is, which is a way to avoid controlling Supreme Court precedent.

Now, plaintiffs only other response to *Trinko*, which you also heard this morning, is that it imposes

conditions on customers. Now, on this slide, we're showing every single refusal-to-deal case, including *Trinko*, affected customers. And actually, sometimes it's the customer who is bringing the case, including in *Trinko*. Trinko was the customer. That -- like the whole case existed because the customer brought the case. So that is not -- that is no response.

I'm going to skip over Lorain Journal because plaintiffs have not mentioned it and that's in our briefing. But I will talk about *Duke Energy*. Now, *Duke Energy* also supports Google's case and not the plaintiffs. So in *Duke Energy*, in that case, the Fourth Circuit expressly applied the Supreme Court's refusal-to-deal precedence in *Trinko*, *linkLine*, and Justice Gorsuch's Tenth Circuit decision in *Novell*. And on the right of the slide, we put what *Duke Energy* actually says, which is different from what plaintiffs say it says.

And the Fourth Circuit in *Duke Energy* says refusals to deal are one place where the law has developed a clear test to apply, and zero plus zero plus zero is the correct approach, including where there is an alleged course of conduct. And so here where plaintiffs allege five anticompetitive acts, all refusals to deal, we believe that five zeros is the correct approach.

But what plaintiffs seem to be arguing is that

Duke Energy expanded refusal-to-deal liability beyond *Aspen Skiing*, which the Supreme Court recognized was the outer bound of Section 2 liability. And this, Your Honor, is completely wrong. So to begin with, *Duke Energy* applied *Aspen Skiing* and expressly recognizes that it's a limited exception as every other court to have applied *Aspen Skiing* has done.

And the Fourth Circuit cited with approval not just *Trinko* and *linkLine*, which obviously control, but also *Novell* where Justice Gorsuch refers to the *Aspen Skiing* exception as a narrow-eyed needle.

And in this case, there's not been any serious argument that *Aspen Skiing* applies and that the narrow-eyed needle has been threaded, and there's nothing in the Supreme Court precedent or in the Fourth Circuit decision that would permit going beyond what the Supreme Court has already said is the outer bound.

And, in fact, the Fourth Circuit in *Duke Energy* says that care must be taken lest illegality be inferred from procompetitive conduct.

Now, I heard plaintiffs talk about dreams of a monopoly, but what *Trinko* says is that every firm should dream of becoming a monopoly and that that's what the antitrust laws want.

And so it's not -- it does not mean you have

predatory intent, as Justice Gorsuch says in *Novell*. If there are documents that say we want to win the competition, that does not suffice to show predatory intent and certainly does not suffice to get around the long-standing Supreme Court precedent in *Trinko* and *linkLine*.

Now, plaintiffs also reference *Via Media*. Well, *Via Media* also applied *Aspen Skiing*. And when I looked at it the other day, I noticed -- that I hadn't before -- it includes a side-by-side chart of things that are true in *Via Media* and that were true in *Aspen Skiing*. And like *Duke Energy*, what *Via Media* is saying is that if the Court concludes that the claim meets the *Aspen Skiing* standard, it can still move forward. And there's nothing in any of these cases that say you can dispense with having a preexisting, presumably profitable course of dealing. That's not what these cases stand for, and in any event, none of those arguments have been made here.

So *Trinko* and *linkLine*, we think, decide this case, but we will go through the acts anyway and -- starting with plaintiffs two exclusivity claims. Now, this, I think, was -- the Court was getting to this in the Court's questions. Plaintiffs are saying that customers need AdX to get to Google Ads advertiser demand and DFP, in turn, is needed to get to AdX. So in other words, both of these exclusivity claims depend on Google Ads' advertisers being

unique demand, demand that can't be found anywhere else with revenue that can't be generated anywhere else.

Now -- so what that means is we're going to talk about unique demand, but both of the exclusivity claims are implicated by plaintiffs' failure to show unique demand.

Now, this is Dr. Israel's chart based on Professor Lee's data, and what it shows is that the top 1 percent of Google Ads' advertisers, the very large advertisers who multi-home and have the most economic power, are responsible for more than 90 percent of impressions purchased by Google Ads' advertisers. So at most, even if plaintiffs can claim that there's unique demand, that would be less than 5 percent of Google's ad demand.

Second, plaintiffs rely very heavily on Google saying it has unique demand, but we turn -- we put on this chart every place where everybody else says that they have unique demand too. So talking about unique demand is not, in fact, unique.

THE COURT: But isn't, in fact, the evidence in the case because the publishers feel so locked into using the Google Ad tech, isn't that by itself proof that, in fact, there is unique demand generated by Google Ads?

MS. DUNN: No, Your Honor, because here's why. There's no -- there's no dispute that there are things that a certain small group of publishers want that they are not

getting, and the way that they articulated that was access to real-time bids so that they could have Google Ads' demand compete against all other demand at the same time.

But the truth is that these publishers have access to Google Ads' demand in other ways. So, first of all, they can use AdSense, which we'll talk about, which connects to an ad server. They can -- Google Ads' demand connects to DV360 and, therefore, other rival exchanges that the publishers can access.

So what they're really saying is that they can't have access to Google Ads' demand in the exact way that they would prefer, but there are many other ways to get access to Google Ads' demand that we've discussed in this trial. So we're not here to argue that there's not a small collection of large publishers, like News Corp and The Daily Mail, who are unhappy. That was certainly true at trial.

But the question under the antitrust laws is not how can we provide access to our own customer base in exactly the way that these companies want or that our rivals want. In fact, *linkLine* says that that -- that's completely protected to not do that.

So there are really two things going on. One is these customers, these Google Ads' customers who multi-home across all of these DSPs, right. These are the large advertisers and agencies who have 95 percent of the revenue.

They are accessible to the publishers. They do have access. They just don't have access in the precise way that they would like, which is to put -- to put that group of advertisers in competition with all other demand sources at the same time with real-time bids through AdX. And that is what this case is actually about, and that is what they said that they want to be community property.

I'll also say, now that we're on this topic, that, you know, there wasn't -- you know, the publishers who testified here, News Corp, Daily Mail, and Gannett, those are three publishers. There are millions of publishers who interact with Google's ecosystem. And so the Court never heard from the many publishers who are, you know, happy with what they're getting from the plaintiffs. They never put that evidence on.

So this is -- you know, most of those witnesses that testified in this case are literally on the board of something called Prebid, which is an open-source consortium, and their view of the world is just entirely different, not just for -- you know, Google has made its products interoperable. So sort of different than Google's view of the world but definitely different from the way that the antitrust laws work. They do not say that you have to share your technology, your real-time bidding, or your customer base on terms that other people want.

So I will also say that -- because I think it's responsive to Your Honor's question -- if you look closely at the testimony -- Mr. Kershaw's testimony, for example, when he says we want access to this demand, he doesn't say they don't have access to the demand. What he says is we want access to as much as we can get, as much as possible.

And with -- and so the issue really is this. You know, the real-time bids into AdX which is made possible on the Google system by the integration between DFP and AdX. So what they're really asking for and what this entire case is really about is this demand to integrate rival ad exchanges with DFP as closely as Google's own software is integrated as a means to get Google Ads' demand, which they can get in a variety of other ways.

Does that help? Okay.

So one thing I -- item I just mentioned is AdSense and --

Let's hold on. Okay.

So at the beginning of this trial, plaintiffs seem to be pressing the case that if you're The Staunton News Leader, you had no way to get Google Ads' demand. And on the first day of Google's case, it became clear that Google does have a tool for that. It's called AdSense for Content, and it is the other half of Google's ad network. And AdSense has complete access to Google Ads' demand. It can

be used with Google's ad server or anyone else's ad server or no ad server at all. And this is why this tool, which gives complete access to Google Ads' demand and can be used with any other ad server, like Scott Sheffer said with Microsoft Monetize, has been completely excluded from plaintiffs' case. And instead, what they did was make up something called an advertiser ad network.

But this is a big hole in their case and kind of gives away what's going on here because if they really cared about getting access to Google Ads' demand using any ad server or no ad server at all, there is actually a tool for that.

Now, fourth -- and I should have mentioned this before in response to the Court's question -- is Google built something called AWBid, which did connect Google Ads' advertisers to rival exchanges under certain circumstances. And the AWBid story illustrated how difficult it is to make these integrations safe.

And per Bjorke, who worked on Google's ad spam team for 11 years, he testified that when they first started to run experiments on AWBid, he saw an exceptionally high level of invalid traffic because other ad exchanges did not do a good enough job of keeping bad actors out of the system.

And Google, as the Court heard from the very

beginning, is very concerned about vetting publishers and advertisers on both sides of the network. And so this is a document that shows 70 percent of spam, 98 percent of clicks or spam in the other exchanges.

Now, the Court asked about latency. Mr. Jayaram and Mr. Bjorke and contemporaneous documents all talk about latency, and that's one reason it is hard to do these integrations in a way that don't disturb the service that the customers are used to. That's paragraph 831 of our findings of fact.

And I also heard plaintiffs say that security is not a procompetitive justification, and that has been -- there's no court that has ever said that. Security is, of course, a procompetitive justification and was illustrated by Mr. Bjorke's testimony that when there was the methbot scam, they got in through DV360, not Google Ads because Google Ads is much more secure because it's not as integrated.

Now, to the Court's question from before, to the extent that plaintiffs are looking for a Google buying tool that fully connects Google advertisers with publishers who sell on rival exchanges, that's DV360. Now, it is more vulnerable to ad fraud scams; although, Google works on that too. So -- but it's more open. There are trade-offs, and Google is allowed to make products that suit different

customers' needs in different ways.

Now, this also goes to Your Honor's question, which is if you look closely, when the industry participants are complaining about losing Google demand, they are talking about losing AdX demand. And that includes DV360 and many other authorized buyers, like The Trade Desk and Yahoo and Criteo. Okay.

So if you -- so we put some of this on the slide, but The Daily Mail and Gannett and Kevel all explain that they're losing access to ads -- that ads demand that comes through AdX, which includes all of these other things.

So there is not evidence in this case that measures the loss of unique Google Ads' advertisers. And in any event, that number would be extremely small because the vast majority of Google Ads' advertisers are these companies who are multi-homing.

So just to put a fine point on this, there's no evidence that advertisers who use Google Ads use it exclusively. In fact, there's infinite -- not infinite, but quite a lot of evidence to the contrary, and Google Ads' demand is not only available via AdX.

Now, plaintiffs' second exclusivity claim fails for the same reason -- which is the reason they care about DFP AdX integration -- is because they want Google Ads' demand. So all of that argument about unique demand applies

to the second exclusivity claim.

But the second exclusivity claim also fails because they say it's a tying claim, and it's not really a tying claim. And we put this up on the screen. This is from the plaintiffs' conclusions of law. And basically, what it says is you could disaggregate the products and offer the publisher companies' customers AdX's real-time bids and pricing information through rivals.

So what they're saying -- and they've not really challenged in this case the integration of the products -- is that you could separate the products and that wouldn't be enough. Like, what they're really asking for is the second part. And the second part is not something under *Trinko* and *linkLine* that can be compelled. Neither is the first part.

In any event, AdMeld also falls into the same bucket. What the plaintiffs actual complaint is is that AdMeld had nascent RTB functionality, and when Google acquired AdMeld, as the evidence showed, its focus was on acquiring a company for traditional network yield management, not real-time bidding.

And so what plaintiffs are really complaining about is that when we acquired AdMeld, we didn't do this thing that we have never done, which is to integrate AdX with rival publisher ad servers to give real-time bids into rivals. And we'll talk in a little bit about the legitimate

business reasons for not doing that, which were reinforced by the experience of the CEO who came from AdMeld who talked about how difficult it is to do such a thing.

So that's this document. And what this document shows is that Brian Adams, he was the co-founder and CTO at AdMeld. And he had experience with trying to do these kind of server-side integrations, and he said these integrations were plagued with ongoing issues. And you can see there was some discussion in this document, and at the end, Google concluded the business case does not justify the development, including because of the spam and other issues that the engineers had flagged. DTX 150, not on this slide, that document shows that third parties were unwilling to do the technical work to integrate without a rev share. That document actually has a Google employee saying, "I would love to be in touch with these third parties, but they're not willing to do the work."

And so deciding not to integrate your products because of spam and engineering issues is not an antitrust violation even if some of the large publishers don't think it is their optimal choice. That is a legitimate business justification.

Now, various witnesses inside and outside of Google talked about how difficult it is to achieve these technical integrations. And this, quote, is very

significant. Because here Mr. Korula was asked, "Why don't you do this?" And he said, "We'd have to rework AdX's core code, which would take a team of engineers years to do."

And none of plaintiffs' witnesses, fact or expert, understood the massive amount of work that this would take and that essentially what they're really asking for when they complain that they can't have real-time bids into AdX in the exact way they want is that they're really asking Google to build a whole new product. And it's a valid business decision to decide not to do that. Google gets to decide that.

And why does this matter? Well, *Trinko*, *Novell*, and the court in search all talk about why this matters. Judge Mehta says, "How's the Court supposed to say when and how Google should have integrated?" Justice Gorsuch worried that this would risk judicial complicity and collusion and dampen price competition.

And by the way, that was illustrated when Andrew Casale of Index Exchange said his strategic partnership with Amazon reduced Index Exchange's competition with Amazon by 50 percent. And that's what Justice Gorsuch was worried about, and that's why courts don't compel this.

All of the courts worried that enforced sharing requires courts to act as central planners and says that that's a role for which they are ill-equipped. And if

Google or any other company is required to share its customers or technology or data with competitors to comply with the antitrust laws, how are they supposed to know how much sharing those laws require? Everything? Something? How much is enough? When should they do it? Plaintiffs don't have any answers to these questions. They're coming to ask this Court to do this, which is precluded by law, with no answers to any of those questions.

And I also will say -- plaintiffs have said in their briefing this is not a liability issue. Well, in every court that has decided this and applied these refusal-to-deal precedents, it has been a liability issue. And it's ironic because the plaintiffs are arguing the exact opposite in the play case in the Ninth Circuit where they say, actually, *Trinko* is about liability, not about remedies. And it is about liability. Okay.

So the last problem with the plaintiffs' tying claims that's in our papers is that if you -- these aren't -- as we've said, they're not actual tying claims. But even if they were, they would fail because the plaintiffs haven't proved market power in the tying product, which here is Google Ads' demand. And Professor Lee admitted he had defined no market for advertising or ads. So legally, that claim fails anyhow.

Now, plaintiffs are saying, well, AdX and DFP --

AdX is the tying market. It's not. But even so, 40 percent -- they're saying 40 percent is sufficient market power. Well, that's not true because the power, as they're saying, is coming from Google Ads. But in any event, AdX --

THE COURT: That was the five-minute warning.

MS. DUNN: Understood, Your Honor.

AdX has no power to create a tie with DFP because you do not have to use AdX with DFP. The vast majority of people who use DFP do not use AdX.

So there are so many reasons that this tying claim doesn't exist, and then the last is there's no competitive effects shown from the AdX-DFP tie.

So I do probably have more than five minutes left, Your Honor, and I think it's a good time for me to ask if I will get a little bit of grace from the Court.

THE COURT: Five minutes.

MS. DUNN: Okay. So first look and last look are also challenges to a refusal to deal. Plaintiffs demand that Google build interoperability between rival exchanges and DFP in order to extend Dynamic Allocation to rival exchanges.

Now, the reason this quote is up here is because Scott Spencer, who worked on DFP at DoubleClick and knows Dynamic Allocation, is talking about how Dynamic Allocation is made possible by the integration between the ad server

and the exchange. And that is critical.

It also was procompetitive. Their experts illustrate -- or admit that this made the products more attractive.

And given Your Honor's five-minute warning, I'm now going to skip like all the way to the end because I feel like the end is very important. Okay. It's close to the end. Hang on.

All right. So this is where I want to end, Your Honor. I want to end with the plaintiffs' own chart. Now, I'd be surprised if we didn't see this chart again today. But this is our output chart, and I was happy to see the plaintiffs use it at trial because I think it dooms their case. And even more importantly, this slide illustrates why this case was misconceived in the first place.

So all four of these graphs represent legal cases, *Standard Oil* in 1909, *AT&T* in 1982, *Microsoft* in 1999, and this one right now. And in every one of the others, the court assessed the defendant's share of the market, 75 percent, 77 to 90 percent, and 80 percent. And that is what these cases said. Here, Google is at 10 percent, and that blue line represents extraordinary market-wide growth. So this is like that sold song, Which of These Things is Not Like the Other.

And this -- Your Honor, this is the basis upon

which plaintiffs come to this Court and ask it to overturn *AmEx* and *Trinko* and *linkLine*, and this is the basis upon which they're bringing this Court arguments that other courts have rejected. And this is the basis they offer for the extraordinary step of governmental interference in a rapidly evolving technology market.

THE COURT: Wait. I'm going to give you an extra minute or two because I have a question for you on this.

MS. DUNN: Great.

THE COURT: On the far left side, it says U.S. display ad spending, so many billions of dollars. Over what form of media? Are we talking about open web? Are we talking apps? What do you have on that side?

MS. DUNN: Yeah. So this is -- so this data comes from eMarketer, which Professor Lee also agreed was a good measure.

THE COURT: Okay.

MS. DUNN: And it does include apps and CTV, and it also includes social media.

THE COURT: Do you have a similar chart just using the proposed market, which the government has been arguing throughout this case, which is that we would be limiting this to open-web display? We're not including apps. We're not including video. I'd like to see the same chart. Do you have that?

MS. DUNN: Also, tellingly, there's no data for that. That is not how the data is broken out. So you can't -- this goes to our gerrymandering point. There's nobody that has created the possibility of having the data that you talk about because nobody thinks about the market in this way. So that's the --

THE COURT: You've got two extra minutes.

MS. DUNN: The other thing I would say, though, Your Honor, is that the Google line also reflects that. So the Google line here reflects all of those things, including Google's owned and operated, like YouTube.

Okay. So in conclusion, Your Honor, and since this is our last word here, we want to very much thank the Court and the Court's staff four your time and attention and, of course, for the trial, which was I think for everybody an extremely positive experience thanks to Your Honor.

So we are leaving for the Court this list of principals of antitrust law that would need to be disregarded in order to find for the plaintiffs. And in closing, we just note that this list is underinclusive, much like plaintiffs' market.

Thank you, Your Honor.

THE COURT: All right. Ms. Wood.

And, Ms. Wood, I want you to start with the thing

we just left off with, with Ms. Dunn's statement that there is actually no actual evidence in the record that would support an analysis of the degree to which Google actually dominates that particular market that you've described as the market that's at issue in this case, the open-web display.

CLOSING ARGUMENT ON BEHALF OF THE PLAINTIFFS

MS. WOOD: Sure, Your Honor.

So let me start with that. Obviously, this case included lots of evidence. You heard references repeatedly from Dr. Lee and others to terabytes of data, including log-level data that was produced by Google and multiple market participants. It is that log-level data that was produced not only by Google but other market participants that allowed Professor Lee to calculate the market shares for open-web display where we do see in each of the markets numbers like 80 to 90 percent in DFP, 80 to 90 percent in the advertiser ad network, and 50 to 60 percent for the ad exchange, again, relative to the next largest competitor that is a fraction of that amount.

As I was sitting here listening to defense counsel's closing, I was actually reminded of Dickens' *A Tale of Two Cities*. Is this the best of times, or is this the worst of times? This trial was really about two different tales, and it's up to this Court to decide, based

on the law and based on the evidence, which of those tales is consistent with what you heard from that witness stand.

One tale was told almost exclusively by the market participants themselves, individuals who live and breathe these markets every day and who were not paid to come here and testify.

Another story, a very different story, was told by the defendant's witnesses, all but one of which received money from Google. And what did you hear from them? You heard from them mostly theory and very little fact.

What did you hear from Professor Milgrom, a man with obviously commendable and impressive credentials, a Nobel Prize? But his opinions, Your Honor, were at war with the facts here. Despite the repeated evidence heard from multiple market participants, Mr. Milgrom -- Professor Milgrom testified that, actually, first look is a disadvantage, not an advantage at all to go first in the auction and have the opportunity to actually bid. Whereas other market participants don't. That's a nice problem to have if you can get it.

You heard Professor Milgrom also say that last look -- he couldn't say for sure whether that was actually an inherent advantage. Again, a theory offered in contradiction to the hard commercial reality of facts.

And what did you hear from Dr. Israel, defendant's

economic expert? Essentially, let them eat cake. These publishers, if they're unhappy, all they need to do is build their own in-house $100 million publisher ad server. All they need to do is work harder. Sure, they testified they do all they can to sell business directly, but just work a little harder and sell more directly. Or why don't you just switch to app? Take those websites that you've created and just convert all your users over to app. How easy could that be?

Well, the Court heard directly how challenging that was from, again, a fact witness, someone with real experience in these markets, Mr. Wheatland, who testified it ain't so simple.

This case is about two different versions of reality, and I will say I find it a bit rich being accused of gerrymandering or manufacturing for litigation market definition when this is the company who issued mandatory communicate-with-care policies to its employees instructing them to use preferred vocabulary when talking about antitrust matters, to stamp their documents privileged and confidential, and to speak freely only in off-the-record chats that are deleted after 24 hours.

We don't need that missing evidence to prove the facts of this case. The facts of this case are overwhelming. But we still do very much believe that that

destruction of material evidence does qualify for an adverse inference here. And if there's any fact about which this Court has any level of doubt, we believe inferences could be drawn against this defendant for that reason.

And I'll also add, while we're talking about making up points for litigation, that it's not the plaintiffs but the defendant who, in fact, switched positions about how to define the relevant marketplace in one court on the other side of the country and in this court here.

So is this, in fact, a vibrant marketplace? I'm glad my colleague showed you Demonstrative AG because I do think it's important to show. Because it puts the lie to the notion that output expansion is indicia of the absence of monopoly behavior. That is not the case. *Standard Oil*, *Microsoft*, and *AT&T* all involved markets that were thriving and yet also had monopolists behaving in inappropriate ways in those markets.

So the general growth of the Internet tells us very little about the markets that we're talking about here, and the fact that TikTok, Amazon, and Facebook are all household names doesn't mean that publishers or advertisers can use them to buy or sell open-web display ads.

Not once in counsel's closing did you hear an explanation of how those companies are competing against

Google in the market for publisher ad servers that are capable of selling open-web display or ad exchanges or ad networks that are capable of facilitating open-web display. And that's for one simple reason. TikTok, Amazon, and Facebook don't offer those services outside of their walled gardens. And the reality, again, is that nine out of ten, nine out of ten open-web display transactions fall or are transacted through the hands of one market participant, the defendant, Google.

So counsel talked about how Google was really on the ropes according to this one Microsoft document from 2017. On the ropes. Well, again, what Google faced in the years 2015 to 2017 was, in its own words, an existential threat. What was that existential threat? Header bidding. And what was header bidding? Header bidding was an industry-contrived hack to get around the dominance of a publisher ad server that wasn't serving its customers.

Header bidding did not disintermediate the publisher ad server. Why? Because as you heard, all roads lead back to Google at the end of the day. Google -- after the header bidding auction takes place, that number is given back to Google's publisher ad server, DFP, and they, and they alone, are offered a last look. So they're not disintermediated.

Did they face more challenging times after header

bidding? Absolutely. Is that why Mr. Casale called header bidding hypercompetitive relative to the waterfall setup in which he didn't even get a chance to bid? Sure, he did, but all things are relative.

And do remember that while header bidding is alive and well today, every single open-web display ad that is transacted through header bidding is included in the market shares the Court has in evidence. So header bidding is not excluded from this market. Every bit of those shares are included in the fraction of 5 percent or 4 percent or 2 percent of market share of other rival ad exchanges.

Now, there's a lot of talk about substitution and, in particular, advertisers ability to substitute. But what the antitrust law requires is that you look at the purpose of the substitution. Is the substitution sufficient to chasten a hypothetical monopolist? That means, are the tools involved reasonable substitutes such that a hypothetical monopolist would not be emboldened to raise prices or degrade quality because they fear that kind of substitution? That is not the substitution we have here, Your Honor.

Because one set of publishers have no other choice. Even if there were meaningful substitution on the advertiser's side of the market, which there is not, the fact that publishers can't substitute a way means that a

hypothetical monopolist is not chastened.

And how do we know that? How do we know that Google is, in fact, not facing fierce competition? In the words of plaintiffs' -- defendant's proposed findings of fact, we know that defendant is not facing fierce competition because the defendant is still maintaining a 20 percent take rate for AdX impervious to the fact that the majority of its rivals charge half that amount.

And you don't have to take that from me. Take that from defendant's own witnesses who acknowledge that the AdX take rate is double the competition and that it can only be justified because of the ties, which are illegal.

Was it fierce competition that Google faced that allowed it, in the words of PTX 183, to literally "holdback" its Google Ads' advertisers from building on rivals in order to do what? To promote AdX. That's not fierce competition.

Was it fierce competition that emboldened Google to impose widely disfavored Unified Pricing Rules that prevented publishers from making better deals with rivals? Is that the kind of fierce competition the antitrust laws are here to protect? Of course not. Fears competition is about making better products at better prices and, most of all, allowing your customers to choose who they want to work with.

Here, the evidence showed the opposite, that

Google degraded its products and charged its customers "irrationally" high rent. Those aren't my words; those are the words from Google's own Chris LaSala.

Those are not the practices you see from a market participant who faces stiff competition. Those are the actions you see from a "authoritarian intermediary," which is, frankly, a pretty apt description in the words of PTX 284 for how the market rightly views Google.

Now, against the weight of this evidence, what is Google doing to try to persuade you that it's not a monopolist? It's doing very simple math, a slight of hand that monopolists have used for a century. Just change the lens. Step back a few steps. Once you change the aperture of the lens and you zoom out, all the detail and the closeup facts become obscured. And when you step back out that far, maybe all that matters are buyers and sellers. Maybe all ads do compete with each other because they all vie for the customer's attention. Maybe gaming is in the same marketplace as open-web display ads.

But that level of a zoomed-out perspective obscures the very purpose of looking at market definition under the antitrust laws, which is to look at the arena of competition and determine if there's a problem.

And counsel tried to argue that *AmEx* somehow requires -- because this is a situation where there are

buyers and sellers, *AmEx* somehow requires you to collapse a number of different ad tech tools into one market with each other. That's not what *AmEx* requires. Let me quote *AmEx* specifically, "The relevant market is defined as 'the area of effective competition,"' the arena within which significant substitution in consumption or production occurs."

You didn't hear about significant substitution between ad servers and ad networks. You didn't hear about significant substitution between Facebook and DSP. No. So, again, *AmEx* talks about the fact when both sides simultaneously choose to use the same tool. That's not what we have here. We have a marketplace that has three distinct tools.

THE COURT: Ms. Wood, you started with Dickens, and you know, there's a guillotine in *A Tale of Two Cities*. I'm about to use it. All right. Your time is about up.

MS. WOOD: May I make one point, Your Honor?

THE COURT: One point.

MS. WOOD: Thank you, Your Honor.

Just on *Trinko*, let me emphasize that with respect to *Trinko*, *Trinko* did not involve tying claims as this case does. And in fact, the court's decision in *Kodak* makes abundantly clear that tying claims are still illegal under the Sherman Act.

And with that, let me just say that all we ask in this case, Your Honor, is that you apply the facts exactly as you heard them from the people who participated in these markets and that you apply the law exactly as written.

Thank you very much. And we, too, sincerely appreciate all the time and effort and resources that the Court and this incredible staff has put in to a trial of this magnitude, and we sincerely appreciate the experience.

Thank you very much.

THE COURT: Well, as I said at the end of the trial -- and I'll repeat it again -- this was one of the best -- it is probably the best tried case I've had in the years I've been on the bench, and I've had a couple of very good trials. But both of you, both teams really did a suburb job of being, first of all, well prepared, incredibly courteous to each other even though you both, you know, very vigorously, you know, believe in your positions. Obviously, I'll have to make the final decision in this case, but it was, again, a pleasure to also hear from you.

No rebuttal. I know you're on your feet, Ms. Dunn.

MS. DUNN: Well, Your Honor, there's one citation that directly responds to the Court's question of is there data. So I'm happy to give that to you or not if you prefer, and then there's one thing we would like to hand up.

THE COURT: No. I think it's done. We've got thousands of pages.

MS. DUNN: Okay.

THE COURT: That is enough.

Thank you. We'll recess court for the day.

MS. WOOD: Thank you, Your Honor.

MS. DUNN: Thank you, Your Honor.

(Proceedings adjourned at 1:19 p.m.)

I certify that the foregoing is a true and accurate transcription of my stenographic notes.

Stephanie Austin

Stephanie M. Austin, RPR, CRR